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Exploring how women use the Alexander Technique: psycho-physical re-education in the postpartum

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by

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Contents

Abstract

Exploring how women use the Alexander Technique: psycho-physical re-education in the postpartum.

Background The postpartum phase is a transitional period of heightened vulnerability for women with potentially compromised self-care. Fatigue and musculo-skeletal tension can impact well-being. While postnatal depression (PND) has received much research attention, a systematic literature review on lumbo-pelvic pain (LPP) in the postpartum for the years 2008-2018 revealed only ten randomised controlled treatment trials. This suggests that some aspects of the postpartum are under-researched. The Alexander Technique (AT) is a long-established holistic self-management approach shown to be effective in managing psycho-physical tension issues and heightening self-efficacy and self-care.

Research studies An interpretative phenomenological analysis explored how eight women with different amounts of AT-experience with babies under a year used the method in the postpartum. Findings suggest that participants used a variety of self-care strategies and skills to consciously modify their self-management via awareness. Using the AT led to a range of well-being benefits through a sense of agency regarding their self-care. Applying the AT while lying in semi-supine was important to their lives. In a second study, a small-scale mixed-methods feasibility study, 15 women without prior experience and with babies under a year were given access to an online self-care package based on AT principles. Eleven women completed the study. Participants were able to draw on aspects of the AT which positively impacted their self-care. This benefitted their well-being and changed their postpartum experience. Prioritising time for themselves to practice the AT while lying down in semi-supine was challenging. Implications/conclusions These studies are the first (known) studies exploring how women use the AT in the postpartum. The AT has significance for self-management, self-care and prioritising maternal needs for rest and addressing tension issues. Further research into the AT as an approach to supporting perinatal well-being is warranted.

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This thesis is dedicated to my three grown up children and my grandson, born mid 2020.

Abbreviations

AT	Alexander Technique
BP	back pain
CAM	complementary and alternative medicines/therapy
CR	constructive rest
FHP	forward head posture
HNB	head-neck-back relationship
IPA	Interpretative Phenomenological Analysis
LBP	lower back pain
LPP	lumbo-pelvic pain
OMT	osteopathic manipulative treatment
NICE	the National Inst. for Health and Care Excellence
NHS	National Health Service
NSLBP	non-specific lower back pain
PND	postnatal depression
PD	Parkinson's disease
RCT	randomised controlled trial
RMDQ	Roland Morris Disability Questionnaire
ODI	Oswestry Disability Index
PGP	pelvic girdle pain
SAT	self-actualizing tendancy
STAT	Society of Teachers of the Alexander Technique
SOT	super-ordinate theme
ST	sub-theme
SVB	spontaneous vaginal birth
TA	Thematic analysis
WHO	World Health Organisation
VAS	visual analogue scale

Figures and Tables

Publications

Book contribution
Perspectives on Midwifery and Parenthood, Springer Nature (publication 2022)
Prof. Rita Borg Xuereb and Prof. Julie Jomeen (Editors)
Ch. 4 *Well Being and early parenthood*
Nicola Hanefeld, Julie Jomeen, Lesley Glover, Fran Wadephul.

Journal
A systematic exploration of a perinatal framework through women's experiences of lumbo-pelvic pain. Midwifery, May 2021.
Fran Wadephul, Lesley Glover, Nicola Hanefeld, Julie Jomeen.

Conferences

Poster presentation 40th Annual Conference, Society for Reproductive and Infant Psychology Conference, SRIP. (Postponed from September 2020 to September 2021). *Self-care in the postpartum using the Alexander Technique: '…because I know how to look after myself…'*

Conference presentation Trinity Health and Education International Conference, March 2020 presenter F. Wadephul: *Lumbo-pelvic pain and perinatal well-being: a systematic framework review of womens's experiences.* Franziska Wadephul, Lesley Glover, Nicola Hanefeld, Julie Jomeen.

Conference presentation 5th Australian Nursing and Midwifery Conference
An Alexander Technique-based Online Self-care Package for Postpartum Women: Feasibility Study
6th May 2021 Innovative Healthcare. Presenter: Julie Jomeen, Southern Cross University

Glossary

Frederick Matthias Alexander (1869-1955) Alexander was born in Tasmania, Australia. He was a recitor who developed voice problems towards the end of the nineteenth centuary. Working out his Technique to solve his issues he developed psycho-physical re-education. Emigration to London, UK, in 1904. He maintained a successful teaching practice of his Technique in London, Ashley Place, till his death. Prominent clients included George Bernhard Shaw, Aldous Huxley and John Dewey.

Prof John Dewey (1859-1952) American philosopher, educational reformer and psychologist. Dewey wrote the introductions to three of Alexander's four books: *Man's Supreme Inheritance* (1910)*, Constructive Conscious Control of the Individual* (1923), and *The Use of the Self* (1932). Dewey met Alexander in 1916 and he and his family started taking lessons. He took lessons with Alexander for 35 years (McCormack, 1958; Boydston, 1986). The role Alexander played in the development of Dewey's work appears to be a 'neglected influence' (McCormack, 1958).

Walter Carrington (1915-2005) British first-generation teacher of the Alexander Technique who trained with Alexander from 1936-1939. He went on to train many 2nd generation Alexander teachers with his wife Dilys at the Constructive Teaching Centre, London, UK from 1955 onwards.

Prof Niko Tinbergen (1907-1988) Dutch ethologist, 1949-1974 University of Oxford. Winner of the Nobel Prize for Medicine and Physiology, 1973. He and his family had taken Alexander lessons and Tinbergen devoted about half of his Nobel Prize acceptance speech to a favourable description of the AT and its benefits including scientific references.

Frank Pierce Jones (1905-1975). US American first-generation teacher who learnt the Technique with both F.M. and A.R. Alexander, Alexander's brother. Jones was a classics professor at Tufts University, USA. After experiencing improvements in his health while studying with the Alexanders, Jones devoted thirty years to investigating the principles underlying Alexander's discoveries.

Dr Theodore Dimon Adjunct Professor, Columbia University, Teachers College. Second-generation teacher who qualified with Walter Carrington in 1983. The Dimon Institute in New York houses the F.P. Jones archives and trains Alexander Technique teachers. Author of numerous books on psycho-physical education and related fields.

Dr Kathleen Ballard Second-generation teacher who trained in the early 1980s with Walter Carrington. Kathleen has been involved in the planning and conducting of peer-reviewed publications on the AT.

Lulie Westfeldt (1895-1965) US Amercian Alexander Technique teacher and member of Alexander's first training class, 1931-1934. Author of *A Man and his Work* (1964/1998), Lulie's book was one of the first to take a critical stance towards Alexander.

Marjory Barlow (1915-2006) 1st generation teacher, Alexander's niece. Barlow began lessons in the Alexander Technique with her uncle, F.M. Alexander, at the age of 17. Her career as an AT teacher spanned seven decades. With her husband, Dr Wilfried Barlow, a medical doctor, author of *The Alexander Principle*, they also trained numerous teachers in London.

Prof. Rudolf Magnus (1873 – 1927) German physiologist, pharmacologist, medical doctor, worked in Utrecht on the physiology of posture. He established in 1912 that animals have a

principle reflex mechanism for controlling and directing tension and this lies in the poise of the head. He summed this principle up by saying in animal movement *'the head leads and the follows'.* He used two categories of reflexes, the 'righting reflex' and the 'attitudinal *'the head leads and the follows'.* (F.P.Jones, 1998:119). The significance his work for the Alexander Technique is considered in Ch. 2, p.50.

Dr. Carl Rogers (1902-1987) Rogers is one of the founders of Humanistic Psychology and known for his work on the person-centred framework. Rogers studied for twelve years at Columbia University Teachers' college, USA. He acknowledges the influence of encountering William H. Kilpatrick's work there (Rogers, 1959:186). Kilpatrick (1871-1965) was a colleague and successor of John Dewey. Dewey's association and appreciation of F.M Alexander's work is interwoven throughout the pages of this thesis.

The Alexander Technique community There were around 3000 registered Alexander teachers in affiliated societies worldwide in 2018 who have undergone an approved three-year training of at least 1600 hours all of whom are traceable to Alexander's first training class in the 1930s. There are an unclear number of teachers in non-affiliated professional societies (STAT-News, Sept. 2018). In the UK the largest teacher's society is the Society of Teachers of the Alexander Technique (STAT). Alexander Technique practitioners refer to themselves as teachers, not therapists and as giving lessons not therapy. Hence, they teach pupils, clients (or students) and do not 'treat' patients.

Alexander Technique terminology 'Inhibition' ('inhibiting') in the context of the Alexander Technique means learning to not react immediately to a stimulus. '*Direction'* ('*directing'*) means learning to project conscious thoughts to improve the alignment of the head-neck-back system. Elaboration on these practical skills and other AT concepts is the subject of Chapter 2.

I have been teaching the Alexander Technique since 1989 and was qualified as a teacher by Yehuda Kupermann, a 2nd generation teacher who had trained with Patrick Macdonald. Macdonald was a member of Alexander's first training class and was a colleague of Walter Carrington. I am English but have lived in the City of Freiburg, Germany, capital of the Black Forest, since 1981.

Statement outlining how the pandemic has impacted the conduct of my research project
Throughout 2020, with visits either inadvisable or impossible due to lockdowns, I greatly missed my visits to the University, quiet studying in the library, alone but part of a community. I missed the vibrant and motivating contacts to the PGR community and my new friends. How the pandemic impacted the design of Study 2 through the impossibility of delivering practical hands-on Alexander Techique work is detailed in Ch. 8 along and the solutions for this initial dilemma.

1 INTRODUCTION

> *'No one would deny that we ourselves enter as an agency into whatever is attempted and done by us. That is a truism. But the hardest thing to attend to is that which is closest to ourselves, that which is most constant and familiar. And this closest 'something' is, precisely, ourselves, our own habits and ways of doing things as agencies in conditioning what is tried or done by us.'*
>
> Dewey in Alexander (1923:xxxii).

This chapter gives an overview of the thesis topics. It starts by describing how the method which is examined and explored throughout the following pages, the Alexander Technique (AT), understands the term *self-management.* This is contrasted to the conceptualisation and use of the term *self-management* within the mainstream health care literature. Why the AT has this divergent perspective is discussed in Ch.1 and some current literature on self-management within the healthcare realm is critiqued. Where these two varying conceptualisations seem to converge is put forward. This chapter introduces the AT as a method for modifying self-management in the postpartum phase of life which is the main area of research in this thesis.

The content and scope of this dissertation

There are three main themes running through this thesis which Rugg and Petre (2004) call narrative spines. The first theme is self-management with a conceptual understanding as literally, how people manage their selves: '*our own habits and ways of doing things as agencies'* (Dewey in Alexander,1923:xxxii). This conceptualisation of self-management stems from the Alexander Technique (AT), a method which is explored throughout this thesis, the main co-theme. The founder of the Technique, F.M. Alexander (1869-1955) an Australian recitor, called his method psycho-physical re-education and he called self-management *the use of the self* (Alexander, 1923). Alexander recognised that how someone *uses* themselves affects the quality of their functioning, an insight which has seemingly failed conceptually to enter mainstream healthcare. Examples illustrating this argument are given in Ch. 2, section 2.4. The subject of the fieldwork is the potentially challenging postpartum phase of life and how women use the Alexander Technique to modify their self-management and how that influences their self-care during this time. This is a significant research area because little is known about how women adapt their self-management while recovering from birthing and dealing with the many psycho-physical demands of the postnatal phase. A further aim of the

thesis is to lay the foundations for the writing (post PhD) of *The Postpartum Handbook: mindful maternal self-care with the Alexander Technique*.

Self-management: an ambiguous concept

Existing notions of self-management in the literature are different from the concept of self-management as understood and used in this thesis. Udlis, (2011) notes that understandings of the term vary depending on context and perspective and that self-management in the literature usually means the active involvement of the person to manage and improve chronic illness outcomes. Publications where self-management is a term used for managing long-term health issues include, for example, diabetes (Lorig et al., 2010), chronic headache (Patel, Potter, Matharu et al., 2019) chronic pain (Mehlsen and Ørnbøl, 2017), stroke (Lo, Chang, Chau, 2018) epilepsy (Sajatovic, Jobst, Sheegog et al., 2017), dementia (Laakkonen et al., 2016), hypertension (Schwartz and Seyed-Safi, 2018), inflammatory arthritis (MacPhie, 2019), to mention but a few.

Interestingly, Uldis (2011) touches the potential breadth of the concept as conceived in this thesis almost casually noting that:

> *'people cannot <u>not</u> self-manage; each daily decision, each choice reflects a type of self-management strategy.' (p.135.)*

Fletcher, Kulnik, Demain et al., (2019) also point to the lack of clarity in the field and observe that the term, while firmly established, remains a little ambiguous, contentious and multi-faceted. The lack of clarity seems to come from interchangeable subjects and objects. In this thesis, self-management means how a *self* is *managed* and not how *a self* manages something - an object, for example, a chronic illness. The field of self-management as understood in this thesis is about mothers managing themselves in the postpartum. A central tenet for proponents of the AT is that the quality of how people do what they do influences how well they function and hence, indirectly, how well they can care for themselves.

The *self* in the concept as discussed in the following is undivided, a whole person: hence Alexander's understanding that his approach is psycho-physical with no separation of mind and body. This stance has some common ground with the bio-psycho-social model of health care (Engel, 1977) and has little common ground with the dualistic biomedical model where the body is seemingly viewed as a separate entity from the mind, and often dealt with as such. Mehta, (2011) undertakes a critique of mind-body dualism from a health perspective, focusing on how disease, health and treatment are defined by Cartesian dualism and the self-

defeating consequences that arise from it. This, despite disavowal from various realms including health practitioners, philosophers and the public who turn to CAM. The concept of an individual's psycho-physical unity is key and fundamental to the AT and this position is taken up throughout the thesis. Alexander explains:

> *'… when I employ the word 'use' it is not in that limited sense of the use of any specific part (of the body) but in a more comprehensive sense applying to the working of the organism in general.' (1932:22)*

Furthermore, it is the self, with resources that vary from woman to woman, which navigates the perinatal period. Carrington and Carey (1992:111) note that for Alexander, the unity of the self was central and *self* was a comprehensive term that included mind, body, spirit, soul. This unified, non-dualistic understanding of an individual seems especially pertinent with regard to postpartum mothers. Becoming specific, Alexander says:

> *'…no human activity can be said to be wholly 'physical' or wholly 'mental' but all human activity, in whatever sphere, is psycho-physical activity…' (1923:31)*

Ryan and Sawin (2009) also conceptualise self-management to mean behaviours to improve health outcomes. They note that there is little agreement on what the components of self-management are. This statement reveals more about the source of ambiguity: *behaviours* is a limitless field and creates conceptual difficulties. A behaviour is performed by the person as a whole. The historical roots of the concept of self-management are explained by Ryan and Sawin from three aspects: self-management as a process, a programme, or an outcome. They list the process as including self-regulation skills to manage chronic conditions or risk factors involving activities such as:

> *'goal-setting, self-monitoring, reflective thinking, decision making, planning for and engaging in specific behaviours, self-evaluation and management of physical, emotional and cognitive responses associated with behaviour change.' (p.219).*

This list also reflects an understanding of self-management as used in the field of human behaviour and the learning context (Arguedas, Daradoumis, and Xhafa, 2016). Self-management was identified by the Collaboration for Academic, Social, and Emotional Learning (CASEL) as one of the five social-emotional areas of learning. Here, self-management is the term used to refer to the ability of a person to be able to regulate emotion and behaviour in a manner considered acceptable by society. This includes how the individual copes with wants or needs that remain unsatisfied, not giving up when faced with obstacles,

and setting goals (Moore, 2016). This is closer to the understanding of self-management as used in this thesis because *how* is included in its conceptualisation.

Self-control is also seen as a particular facet of self-management by Kanfer and Gaelick-Buys (1991). The conceptual step to *self-efficacy* is minimal which means how much belief an individual has in executing a course of action required to deal with situations (Bandura, 2006). An individual's confidence in her/his ability to undertake specific self-management behaviours has been highlighted as the main influence on successful self-management (Gallant, 2003) which is an understanding coming closer to the one proposed in this thesis and how the term is being operationalised in the following. Self-control and conscious direction of one's activities are central aspects of the AT supporting a constructive use of the self: overlapping conceptual understandings emerge. Details of the AT terminology and the practicalities of the method follow in the next chapter.

Ryan and Sawin (2009) additionally make the point that a lack of conceptual clarity leaves directions for future research unclear. Grady and Gough, (2018) agree, noting that the term self-management is widely used with a variety of definitions and conceptualizations with a deficit of agreement in the literature. These considerations, however, reveal fundamental differences in approaching the topic. On the one hand, theoretical conceptualisations as to what might 'comprise' self-management and an unclear use of the term. On the other hand, the AT, a little known practical self-management method that includes skills and tools to apply to the very field it is addressing. The arguments in this divide will recur in theory and discussion throughout this thesis.

Self-management: use of the term in realms outside the health arena

The term self-management is also widely employed within the business realm (Covey, 1989; Drucker, 1999; Allen, 2002). Here it often means efficiently managing tasks in a specific manner to reach business targets, turnover and profit. Broadening the scope in the business realm, MacGregor and Semler (2012) envisage a new self-management as an orientation for the 21st century professional. They set forth concepts of whole-person development where health and well-being are linked to executive performance, to improve self-management. Here, a step towards the conceptual understanding of self-management as used in this thesis and within the Alexander Technique community seems to be emerging. Doering's work on postpartum fatigue and sleep (2013) likewise anchored in the health arena, also broadens the concept out, seeking to relocate an understanding of self-management from managing chronic illness to the realm of health promotion which appears to share MacGregor's

intentions. How the AT can play a role in promoting postpartum well-being and the challenges surrounding conceptualising well-being are explored in this thesis.

It may be feasible to suggest that limiting concepts of self-management to the health, psychology or business realms, represents a significant conceptual gap in human knowledge. How people do what they do, the quality of their *use* pertains to all fields of human activity: there seems no context where the quality of human response and action is insignificant. This response can vary from reactive, tense and stressed to consciously aware, relaxed and calm (with endless shades in-between).

1.1 The Alexander Technique and psycho-physical re-education

Woodman, Ballard, Hewitt et al., (2018) refer to the Alexander Technique as an embodied reflective practice with individuals learning and applying AT skills to become intentionally able to modify the quality of their daily activities through increased awareness. The authors see it as *'an effective long-established but often under-utilised way of bringing about constructive self-change'* (p.64). The Technique blends practical, hands-on guidance and cognitive learning to enhance and refine the quality of the use of the self in the person taking lessons. The skills learnt during lessons can be applied alone in everyday life. There is much anecdotal evidence and some robust research evidence that AT lessons influence awareness, mood, self-efficacy, self-care, 'balance' (in its broadest meaning), state of mind, (as in calm), postural tone, physical well-being, (for example, the ability to avoid back or neck pain stemming from tension) and hence well-being in general. Expressed in AT terms this means *improved use affects functioning.* This evidence is discussed in Ch. 2. These results seem to stem from the educational approach of the AT involving a learning process which transmits self-care skills and instils a sense of agency in the person applying them (Woodman and Ballard, 2018). The psycho-physical approach of the AT means taking lessons can influence not only posture but also a person's sense of well-being (Maitland and Horne, 1996). The Alexander Technique is not a passive treatment but the person as a whole, the whole self, is engaged in learning specific skills and then using them in everyday life. Similarities and differences of the AT to other CAM approaches, many of which are more widely known, are considered in Ch.2, section 2.9.

The field-work and its findings which are presented in this thesis are about the use of the self in the postpartum: how women use the Alexander Technique when they sit, stand, walk, feed and carry their infant and how they care for themselves and their baby, and, to a certain extent, also how they think. How we think influences how we perform our activities and thinking can tend towards a habitual mode or to a conscious, mindful and aware state. How the focus of this thesis on the postpartum developed is explored in more detail in Ch.4. How do women with experience of the method use the AT and modify their self-management to the potentially challenging 'working conditions' of the postpartum? Can applying the Technique affect their well-being? Well-being remains difficult to define as Wadephul, Glover, & Jomeen, (2020) note along with positing that perinatal well-being is a complex, multi-dimensional construct. They also suggest in their systematic review on the topic that the literature on perinatal well-being reveals attention on the subject to date as mostly based on an understanding of mind-body duality.

1.1.1 The working conditions of the postpartum

While many studies of Western societies document fathers having more involvement with their infants than previous generations and the amount of time fathers spend with their children is increasing (Henz, 2019) Craig (2006) maintains that mothering involves more overall time commitment than fathering. This includes more physical labour and more overall responsibility for managing care.

Abel and Nelson (1990:8) propose that,

> *'Caregiving in the domestic domain is easily romanticised. Caregiving is embedded in intimate relationships that have histories and futures. Caregivers work according to the preindustrial clock and can deliver services at times dictated by human needs. Moreover, caregiving is divorced from the cash nexus. Because informal caregivers reap no extrinsic rewards, their work more often can be construed as a labor of love.'*

The European Observatory of Working Life[1] defines working conditions as referring to…

> *'…the working environment and aspects of an employee's terms and conditions of employment. This covers such matters as: the organisation*

[1] https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/working-conditions accessed 20.11.2020

of work and work activities; training, skills and employability; health, safety and well-being; and working time and work-life balance.'

The same report also mentions pay as an aspect of working conditions. Drawing these two passages together with respect to the phase of life after a woman gives birth the following section aims to suggest what some of the working conditions of the postpartum might involve. Mothers, especially those breastfeeding, have to organise care work and the activities it involves, they need skills to do this and they can train such skills to care for their well-being and life-balance. They receive (limited) maternity pay for their care work and they deliver services according to the preindustrial clock as a labour of love. Demands are made on women in this phase of life which are exclusive to the postpartum; consequences arise from these demands, for example, soreness associated with breastfeeding or back pain (BP) from carrying a baby. Postpartum back pain is the subject of the systematic literature review of this thesis (Ch.3). Concerning these demands, Symon, Downe, Finlayson, et al., (2015) report on the feasibility and acceptability of using the Mother-Generated Index (MGI) as a patient-reported outcome measure. The MGI is a three-step questionnaire that generates a Quality of Life score based on a list of variables that mothers themselves have identified as being important in the context of maternity care/practice and intervention. Women identified issues including the physical (BP, painful perineum) psychological, social (family relationships) and economic realms. Tiredness was also identified and not classified as a purely physical issue because it touches psychological, physical and emotional domains. A literature research and key review papers additionally provided evidence of the realities of women's postpartum lives leading to five key points that point to the working conditions of the postpartum as understood in this thesis.

The phrase in this thesis, therefore, alludes to the following set of conditions and activities associated with having a baby that a mother has to deal with:

- healing after birthing and adapting hormonally (and otherwise) to the non-pregnant state (Senol, 2018)
- feeding and carrying the baby, often for many hours a day (Thompson, Roberts, Currie et al., 2002)
- disturbed nights with sleep fragmentation and sleep loss due to infant care and resulting tiredness (Doering, 2013; Thompson, et al., 2002)
- adapting to the new family and partner dynamics (Riggs, Worth, and Bartholomaeus, 2018)
- having little time (or energy) to keep up social contacts and take exercise (Fahey and Shenassa, 2013).

Although the puerperium is by definition, the initial six weeks after giving birth, (Pessel and Tsai, 2018) Milman, (2011) points out that there is no consensus on the length of the postpartum period. In this thesis, it is operationalised as the 13 months after giving birth and the women who participated in the two field-work studies were within this period. A justification for this time span is given in section 5.3 as part of the inclusion criteria of Study 1.

How do women experienced in the AT understand the quality of their *use* to affect their functioning? This was examined in Study 1, an interview study with teachers, trainees and clients of the AT. Can women without personal experience of lessons in the AT learn some of these skills and modify their *use* through an online self-care package based on the AT? This was the subject of Study 2 which explored the acceptability of such a package. These issues were some of the key questions for this thesis.

As mentioned earlier, it is the self, with resources that vary from woman to woman, which navigates the perinatal period. Carrington points out that for Alexander, the unity of the self was central. This non-dualistic understanding of an individual seems especially pertinent with regard to postpartum women and their life situation. It has been suggested the AT can be beneficial during the rapidly occurring psycho-physical changes in the perinatal period to help women adapt their self-management (Machover, Drake and Drake, 1993; Forsstrom and Hampson, 1995). A common issue during pregnancy is non-specific lower back pain (NSLBP) and pelvic girdle pain (PGP) with a prevalence of around 50% (Petersen, Paulitsch, Guethlin et al., 2009). Pregnant women usually put on a significant amount of weight in a relatively short length of time, and the lower back lordosis (the curve in that region) becomes pronounced in most pregnant women (Whitcome, Shapiro, and Lieberman, 2007). Pregnancy-related NSLBP and PGP may be *use-related* when women thrust their baby bump forward; this is an area that has yet to be researched. The cause of NSLBP is unknown despite its high prevalence in the general population (Hartvigsen et al, 2018). Cregan-Reid, (2018:202) calls BP '*persistently mysterious'* which is an understandable stance in mainstream healthcare in the absence of a *use affects functioning* concept[2]. The UK National Health Service (NHS) points to evidence suggesting the Alexander Technique can help people with long-term BP (based on results of Little, Stuart and Stokes et al., 2008), long-term neck

[2] To be clear, AT proponents would not concieve all back pain as use-related.

pain (based on results of MacPherson, Tilbrook, Richmond et al, 2015) and Parkinson's disease (based on results of Stallibrass, Sissons, and Chalmers, 2002)[3]

Along with exhaustion, pregnancy-related lower BP is one of the main health issues which does not easily resolve in the postpartum (Thompson, Roberts and Currie, 2002). In a systematic review of theoretical discussions conceptualising perinatal well-being (Wadephul et al., 2020) the authors note that the included papers consider physical well-being to varying degrees but LPP seems not to have been a specific factor of the reviewed papers. Interestingly, *feeling tense* is listed in the review under affective experiences as included by Clarry & Carson (2018). The physical side of tension appears to be a gap in maternal postpartum well-being conceptualisations.

1.2 Learning the Alexander Technique

An Alexander teacher uses refined skills, including gentle guiding touch and spoken guidance to teach a client how to proactively modify their *use* in everyday life. Tinbergen, (1974:186) describes these teaching skills as based on: *'exceptionally sophisticated observation, not only by vision but using the sense of touch, in a very gentle way'.* A person learning the Technique, literally 'in the hands of their teacher,' is taught to use her/his mind, awareness and thinking in a specific and conscious manner. This ability to *'self-reflect, to know about yourself'* is regarded by Fleming (quoted by Young, 2013:35-36) as something *'if not unique to humans at least one of the most developed faculties…'* He refers to it as *'super-consciousness'* stating that '*this meta-cognition seems to be quite core to who we are.*' The AT taps into, employs and enhances this faculty: Alexander alludes to this in the title of his second book *'Constructive Conscious Control of the Individual'* (1923). So here, the Technique seems to connect back to what Ryan and Swain (2009) list (p.16) as 'components' of self-management: *goal-setting, self-monitoring, reflective thinking, decision making, planning for and engaging in specific behaviours, self-evaluation and management of physical, emotional and cognitive responses associated with behaviour change.* These factors can be employed with varying levels of awareness, and this appears to be an aspect in contemporary self-management research that deserves more attention.

Teachers trained in Alexander's method recognise that every person possesses an individual style of self-management or *use* that guides a person through daily life which stems from mostly unconscious behavioural habits. An Alexander teacher's understanding of *use* is

[3] https://www.nhs.uk/conditions/alexander-technique/

differentiated with manifold nuances distinguishing between advantageous or less advantageous *use* which relates to the quality of functioning in everyday life. Karen Krueger, teacher of the AT, explains good use of the self as follows:

> *'fluid, efficient, and alert functioning of body and mind. We talk about the 'self' because we are concerned with the whole person, recognizing that body and mind are not separate. We talk about how we 'use' ourselves to indicate that we can make conscious choices about how to do our daily activities so that the cumulative effects of unconscious habits do not cause us pain and dysfunction.*[4]

The concept of *use* is elaborated in Ch.2. This knowledge and understanding is unique to the AT and has failed to transcend more broadly.

What happens in an Alexander Technique lesson?

In a highly interactive search and re-search employing the processes of inhibition and *direction* (defined in detail in section 2.5) in everyday activities, the client learns with a teacher to recognise unconscious self-management habits and then practise inhibition and *direction* to modify them. Unnecessary and excess psycho-physical tension in daily activities is a common habit. Alexander describes a certain use of the head and neck in relation to the rest of the body as being central to this process (Alexander, 1923). Learning the AT effects a better *'neurophysiological integration, in particular improving the balance of* [the] *head on* [the] *neck and… contact with the floor'* (Carey, 2015:48). Glover, Kinsey, Clappison, et al., (2018:81) see the AT as leading to

> *'better functioning of the integrated and dynamic relationship between the head, neck, and spine making it possible to move and respond with better coordination and balance, and less effort and unnecessary tension.'*

In time, the AT learning process becomes one of increased awareness regarding habitual psycho-physical behavioural patterns coupled with an ever-growing ability to recognise adverse habits and appropriately modify them. In other words, using the AT involves an active process of learning to adjust one's self-management to improve functioning and ultimately enhance well-being and heighten the experience of living.

The AT systematically conveys a means to modify habitual self-management via awareness. In an AT teaching context, skills are employed to avoid such habits (initially on a bodily level)

[4] http://kgk-llc.com/ accessed on 29.1.2020

by repeatedly 'dis-enabling' habitual reactions and patterns through inhibition. Because we are psycho-physical beings, better physical *use* (for example, less tension in movement) includes better *use* on other levels of being (emotional, psychological, cognitive). This improved *use* may include heightened self-efficacy, for example, regarding the ability to avoid tension back or neck pain as Woodman et al.'s (2018) findings suggest. Tinbergen documented altered self-management and functioning in himself and family members taking AT lessons as follows:

> *'striking improvements in such diverse things as disappearance of high blood pressure, breathing, depth of sleep, overall cheerfulness and mental alertness, resilience against outside pressures, and also such a refined skill as playing a stringed instrument.' (1973:123)*

In work with older people who had a fear of falling (Glover et al., 2018) participants reflected upon the range of perceivable changes that set in with an AT group intervention. Participants described a greater level of awareness of their surroundings, of thinking more about how they did tasks and being slower about doing things, in a positive (possibly more aware) way. The ability to self-monitor through awareness, the nub of learning the Alexander Technique, ties in and links back to Ryan and Sawin's self-management realms (p.15). Although awareness as an instance is not specifically mentioned, it is implied in '*self-monitoring, reflective thinking'.* People using the AT have undergone specific training and have acquired a set of skills and tools to consciously modify their self-management. Such a distinct and clear *how-to* approach appears to be lacking in contemporary self-management concepts as discussed above. The *how to do things* facet of the AT is called the *means-whereby* and is expanded upon in Ch. 2.

Alexander teachers have a differentiated understanding of self-management in that they distinguish between 'manner of *use'* and 'conditions of *use*.' These details refer to the primary system influencing our postural mechanisms: the head-neck-back (HNB) relationship. There is evidence that the optimal and balanced working of this system and concurrent improvement of *use* is facilitated through learning the AT (Stallibrass, Frank, and Wentworth, 2005; Loram, Bate, Harding, et al., 2017). Hence, the Technique can have both an educational and therapeutic impact on a person learning and using it. Improved *use* seems to facilitate better functioning and with superior functioning, well-being is enhanced.

Glover et al., (2018:80) describe the AT as,

> *'an educational holistic self-management approach which helps people gain greater control over their reactions, increase their self-awareness and recognise and reduce harmful postural and movement habits through cognitive change.'*

Neither the broad concept of self-management as understood here, nor the concept of *use* and its effect on functioning is explicitly established in the health care realm, or for that matter, in other realms. This seems to represent a surprising conceptual and practical void in human general knowledge. It appears feasible to suggest that considering the quality of someone's general style of self-management and *use* for a variety of health issues represents a potentially valuable missing link in health care.

Well-being is surprisingly difficult to define (Wadephul, Glover and Jomeen, 2020). The literature on well-being is often unclear and is still developing; as yet, there is no consistent well-being model. Commonly, mental or psychological well-being is studied and researched separately from physical well-being. A variable bridging the mental-psychological-emotional and physical domains may, however, be a sense of agency. The evidence that taking lessons in the AT gives people a set of skills and a sense of agency enabling them to positively modify and influence their *use* and therefore influence their well-being is summarised in section 2.10. Haggard (2017) describes a sense of agency as the experience of controlling one's own actions and notes that it is a central feature of human experience of essential importance in civilization because of its significance to the concept of responsibility in human societies. The relationship between postpartum well-being and using the AT through having a sense of agency is highlighted in this thesis.

In this respect, the AT concept of self-management is congruent with Ryan and Sawin's description from the health arena in that it is a *process*. It differs in that the AT is not a skill usually learned to manage chronic conditions (although it can be) but rather alleviate them (for example, chronic neck or back tension) or avoid developing such conditions altogether. Awareness, inhibition, and *direction* are the self-regulation skills employed to improve *use*. When living, we are confronted with manifold stimuli. The sense of agency concerning how one reacts to these stimuli is an important aspect of well-being which is addressed in the discussions of this thesis. Learning to be more aware of adverse habits of *use* while interacting may be a key factor for enhancing well-being. This aspect has led the Technique to be associated with mindfulness. This point is elaborated on in the next chapter.

Historically, it is interesting to note that as early as 1937, nineteen well-established UK medical practitioners familiar with Alexander's work, made a case in the British Medical

Journal (Bruce-Porter, Caldwell, Dick, et al.,1937:1137) for considering *use* when making a diagnosis:

> *'an unsatisfactory manner of use, by interfering with general functioning, constitutes a predisposing cause of disorder and disease and that diagnosis of the patient's troubles must remain incomplete unless the medical man when making the diagnosis takes into consideration the influence of use upon functioning'.*

Present-day visions of 'precision health' (Kellogg, Dunn and Snyder, 2018) aim to discover factors that have the potential to contribute to or prevent illness, seeing the importance of individuals taking an active part in their health care and health-related decisions as inherent. However, the individual and her/his individual *use* seem to become sidelined in precision health which has aims to provide the right treatment, for the right individual, at the right time. The two positions, separated by a span of 80 years, seems to portray modern medicine's progress towards specialisation with the realm of *use affects functioning* playing no role. The AT addresses the whole system rather than a specific area of difficulty: someone with tension back pain will not have a lesson greatly differing from someone starting lessons due to anxiety issues during business presentations. To address *use* it makes sense to have a systemic approach and it is such an approach which means applying the AT principles affects all areas of the self.

Adverse habitual thoughts and behaviour

The conceptual model of the Alexander Technique posits that behaviour is largely driven by unconscious habits of self-management, some of which may be adverse. A definition of habit is given on p.42 and its role in the use of the self is considered. The background to Alexander's concept of *use* is an understanding that people develop habits of which they are unaware exactly because they are habitual. Dewey (in Alexander, 1923) alludes to this in the quote at the start of this chapter by saying that we enter as an agency into everything we do. However, the field of attending to this variable, ourselves, our habits and ways of doing things is, Dewey says, the *hardest thing* and is the very subject of Alexander's psycho-physical education. In Dewey's work *Human Nature and Conduct,* (Dewey, 1922/2011) the central role of habit in human conduct is analysed. Using the will as a solution towards habitual behaviour is not a solution because, as Dewey points out, the only way an act can be carried out is through habits; there is no will independent of habit (Dimon, 2015). The emerging field of 'self-management science' (Hickey, Bakken, Byrne et al., 2019) appears to neglect the role of habitual behaviour and with that, exclude the role of awareness; the role of habit is not

independent of how aware a person is. There is a large body of literature on habit in psychology (Wood, Quinn, & Kashy, 2002; Lally, Van Jaarsveld, Potts et al., 2010; Wood, Tam, & Witt, 2005; Gardner, Lally, and Wardle, 2012) and on the role of habit in health behaviour (Mantzari et al., 2015). However, habitual behaviour as a topic appears to be an excluded aspect in the common understanding of self-management in the health arena.

1.3 Psycho-physical education: an expanding field and discipline

Alexander's discovery of the primary significance of the head-neck-back relationship for effective self-management has failed to permeate mainstream science and gain general popularity. The concepts and application of the Technique frequently remain, despite its long history, niche knowledge and restricted to insiders (Hanefeld, 2016). Psycho-physical education as a recognised field of human knowledge is only now slowly emerging as is self-management science. Pulling the two different understandings of self-management as discussed above together Grady and Gough (2018:e28) say that:

> *'At the most basic level, the maintenance of health and the management of illness may be viewed as being the responsibility of the individual or, as described by Starfield et al., as the responsible stewardship of one's health (2011:582). Therefore, the concept of self-management is integral to both the maintenance of wellness and the management of illness.'*

While maintaining health can be viewed as the responsibility of the individual that is not to discount the well-documented influence of social and economic factors. A large literature on social determinants of health and health inequalities exists. The pandemic has brought to light such influences with ethnic and groups living with 'precariousness indicators' having higher mortality rates (Goutte, Péran, and Porcher, 2020).

The AT is, however, becoming an increasingly well-recognised and utilised approach under the CAM label and as a method to enhance performance in a variety of creative realms for actors (Batson, 1996) and musicians (Valentine, Fitzgerald, Gorton et al.,1995)[5],[6]. Sport is an additional area where the benefits of learning and using the AT are recognised [7]. This success as a method though somewhat eclipses Alexander's fundamental discoveries of a central

[5] https://www.nhs.uk/conditions/alexander-technique/ accessed 14.9.2020
[6] http://www.rcm.ac.uk/life/studentsupport/healthwellbeing/ accessed 19.9.2020
[7] https://www.alexandertechniqueinternational.org/index.php?option=com_contentandview=articleandid=42:sport---fitnessandcatid=20:site-contentandItemid=133 accessed 20.9.2020

organising principle of human action (Dimon, 2020, webinar) and is elaborated upon in the next chapter.

An overview of this dissertation's topics, themes and content is given in Fig.1. The generic nature of psycho-physical education becomes clear: at the centre, the words *in the postpartum* could be substituted with *for orchestra musicians*, *for competitive sportspeople* or *stage actresses and actors*. (Cacciatore, Johnson and Cohen, 2020) call this the generalizability of the AT and offer a model to explain the AT and in doing so address the lack of understanding of the mechanisms despite evidence of its clinical utility.

Proponents of the Technique see the alignment of the physical spine as one of the indicators for the quality of someone's self-management. More exactly, the head-neck-back relationship (Westfeldt, 1964/1998:134) not just the spine. It seems apt that the figurative *narrative spine*, (namely that of self-management) and the *anatomical spine* link and relate to one another in the following pages. The word 'spine' has connotations of a basis, a foundation and as being a supportive instance.

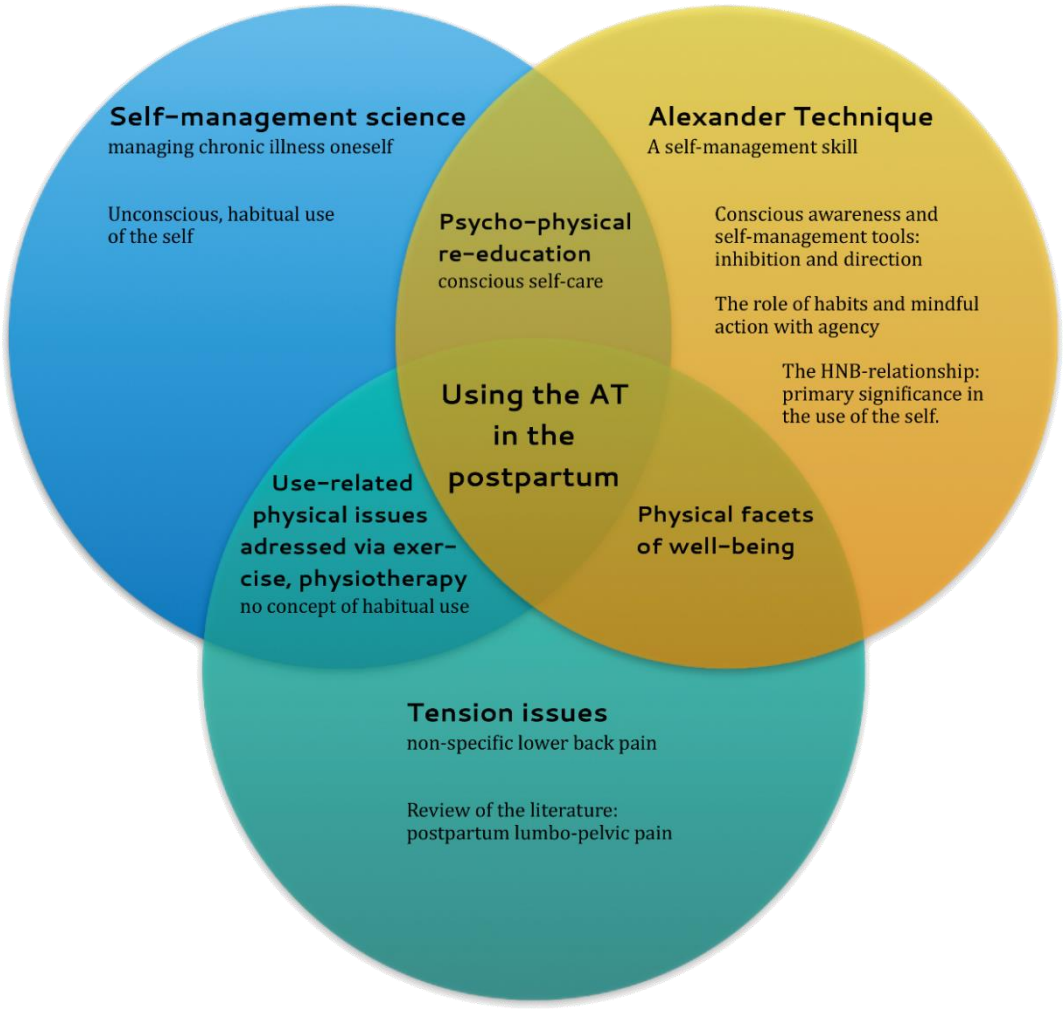


Figure 1.1 Summary of the subjects in this thesis

Design: Harald Gress, Freiburg

1.4 The neglected postpartum

The reasons for postpartum being an understudied, neglected area are unclear. As Fahey and Shenassa (2013) note, the health of women during this phase is a neglected aspect of health care and a subject of comparatively little research, policy, and clinical attention. It may have to do with the potentially demanding conditions of the postpartum. That said, there are particular difficulties in organising trials or research studies during this phase of life when women are potentially vulnerable, have little time for activities not connected to their role, are possibly chronically tired and are adapting to their new life situation. Evidence for this being the case was identified in Study 2 and this is presented in Chapter 8 and discussed in Chapter 9. The physical side of the postpartum, including lumbo-pelvic pain (LPP), where the working conditions and requirements of caring for a baby as well as recovering from birthing also appears to be under-researched. The postpartum has manifold, multifaceted issues for

women and much research on this phase of life has been done on postnatal depression and the loss of psychological well-being. This may represent an 'over-medicalisation of human distress' (Oakley [8]). Pinheiro, Ferreira, Refshauge et al., (2016) found in a systematic review that depression might have an adverse effect on the prognosis of low BP**.** Gutke, Josefsson, and Öberg (2007) report findings suggesting that postpartum depressive symptoms were three times more prevalent in women with LPP than those without. Han and Pae (2015) state that numerous studies indicate that patients with pain are at increased risk for depression, as compared to the normal population. Their paper considers a neurobiological perspective of the relationship between pain and depression. Campbell, Clauw, and Keefe (2003) cite Banks & Kerns (1996) who found that depression prevalence rates in patients with persistent pain ranged from 30% to 54% in studies with the most rigorous criteria for diagnosing depression. The question of LPP's potentially causal influence on postnatal depression (or vice-versa) is far from being elucidated. Conventional care may use the word 'somatisation' if a depressed person develops BP (Crombez, Beirens, Van Damme, et al., 2009); this also suggests a dualistic understanding of the individual.

Pregnancy appears to generally receive more research attention than the direct phase of adaption after birthing, the puerperium, and indeed the months following birthing. In June 2018 using the same databases used for the systematic literature review a search on the same subject, lumbo-pelvic pain, but for the ante-natal period brought 36 randomised controlled trials (RCTs) to light after reading the abstracts. The literature review on postpartum LPP brought only 10 RCTs to light for the same 10-year period. This result appeared to suggest that a three times greater research interest in the subject of BP in pregnancy exists than postnatal BP.

1.5 Thesis overview

The thesis aims to take the reader through the subject of self-management (as conceptualised here) and how psycho-physical re-education can play a role in modifying it during the postpartum. The purpose of this thesis is to highlight the psycho-physical demands of the postpartum on mothers and contribute a holistic understanding of self-management to the literature. The need for the research is shown, and the research question is presented. The epistemological and methodological approach is given and the research methods used are presented. The gathered data and analysis of two studies are presented and discussed.

[8] https://www.bl.uk/collection-items/ann-oakley-motherhood-and-depression accessed 20.7.2019

The final chapter reflects on the research focusing on its strengths, limitations and quality. Recommendations are made for potential further research and what the findings potentially mean for postpartum maternal health care.

The findings of this thesis could be used in practice by members of the health-care professions to raise awareness of self-management (as understood here) especially concerning pregnancy-related LPP experienced in the postpartum. These are issues that are also of interest to mothers themselves and the envisaged writing of a Postpartum Handbook, using the thesis as a background, will be written for this target group upon completion of the PhD. Furthermore, the findings are of interest to the Alexander teacher's community. The following gives an overview of the thesis structure with a summary of each chapter.

Chapter 1: Introduction. This chapter introduces the topic of self-management in the context of psycho-physical education (the AT) and delineates it from the common understanding of self-management meaning managing a health issue on one's own. A general introduction to the AT is given and the context leading to the research questions for Study 1 and Study 2 are described. This chapter lists the organisation of the thesis.

Chapter 2: Conceptual framework. An overview of the concepts of the Alexander Technique is provided emphasising the challenges that exist in theoretically articulating a subject defined by praxis.

Chapter 3: The literature review. Background to the topic of LPP is given followed by a systematic review of RCTs performed on postpartum LPP between 2008 and June 2018. Several gaps in the literature are highlighted. How these gaps played a role in formulating the research question for Study 1 is discussed.

Chapter 4: Methodology. Researcher reflexivity. The underlying epistemological position of the research in this thesis is examined and the methodological approaches are established. The research question of Study 1 was: *How do women use the Alexander Technique in the early postpartum?* The theoretical underpinnings of Interpretative Phenomenological Analysis (IPA), the approach used in Study 1, are set out with a rationale for using IPA.

Chapter 5: Research Methods. The design of Study 1 is given with the rationale of the methods used for data collection. How participants were recruited and selected, data collection and analysis are described. Ethical considerations relating to the research are discussed.

Chapter 6: Findings. The IPA is presented.

Chapter 7: Discussion of Study 1. The sense of agency that was identified in particpants of Study 1 is discussed highlighting that the semi-supine process was important for the women's lives. The AT's affinitities to mindfulness is considered and other researchers' suggestions as to mechnaisms of action of the Technique.

Chapter 8: The mixed-methods feasibility study, Study 2. Study 2 developed from the findings of Study 1 and aimed to understand how non-AT experienced mothers perceived an online postpartum self-care package and examined the usability and acceptability of the envisaged *The Postpartum Handbook*. Did the package affect certain aspects of participant's postpartum well-being? Methods, results and a discussion of Study 2 are presented.

Chapter 9: An integrated discussion of Studies 1 and 2. Increased congruence is proposed as a facet of one of the mechanisms of action of the AT. The role *use* may play in maternal well-being and potentially in well-being in general, is discussed. Who might be interested in the results of this thesis are considered. Strengths and weaknesses of the research are presented as are ideas for future research. Conclusions are made.

1.6 Chapter summary

The three narrative spines of this thesis were introduced in this chapter: a) the postpartum, b) the concept of self-management as understood by the method in focus, c) the Alexander Technique. Self-management in this thesis is understood to mean how someone manages their self. This conceptualisation has not entered mainstream healthcare and the way self-management as a term is used in the following chapters differs markedly from the use of the word self-management in mainstream healthcare literature. These differences were discussed and considered by comparing the health-care realm's understanding of the term and some of the literature surrounding it. The AT was introduced as psycho-physical re-education. Alexander used the phrase *the use of the self* for self-management. The term 'working conditions of the postpartum' was introduced and several facets that this phrase includes were considered. The potential role the AT can play for maternal health and well-being in the postpartum is the subject of the field-work of this PhD. The two field-work studies of the thesis were introduced: a qualitative interview study with postpartum women *with* prior experience of the AT and a small mixed-methods study with postpartum women *without* prior AT experience. A summary of the thesis chapters was given.

In the next chapter, a detailed introduction to Alexander's discoveries and psycho-physical education is given. Specific insider Alexander Technique vocabulary ('jargon') used in this thesis is defined and clarified, for example, inhibition and *direction*.

2 CONCEPTUAL FRAMEWORK of psycho-physical re-education and the discoveries of F.M. Alexander

'There is nothing so practical as a good theory'

Kurt Lewin (Greenwood & Levin, 1998:19)

The following pages initially delineate theoretical from conceptual frameworks, and a case is made for presenting a conceptual but not a theoretical framework in this thesis. The chapter then discusses the fundamental concepts, which the practice of the Alexander Technique literally 'incorporates' and elaborates on the vocabulary introduced in Ch.1. of Tinbergen (1974) Barlow (1978) and F.P. Jones (1998) who call these concepts *Alexander principles*. The practice and theoretical principles which lead to the '*use affects functioning'* concept are examined and this concept is proposed as a missing link in health care. In the final section of this chapter the range of realms that the AT can practically touch is considered in a scoping review of the relevant current literature on this subject.

AT concepts are networked and inter-related to a well-established procedural teaching practice that can be learnt and then used outside AT lessons by an individual in everyday life. How that is done is tacit knowledge and this realm creates challenges to the written presentation. To address this issue, the theoretical, descriptive passages in this chapter are interwoven with passages illustrating praxis.

The strengths, weaknesses and relationships to familiar scientific concepts (where they exist) are highlighted as are areas where their absence appears to be a gap in the literature. Further consideration of the working conditions of the postpartum in relation to the AT concepts is undertaken.

A brief summary of the main AT concepts is now given, some of which have been already introduced, these are then elaborated in this chapter. Cacciatore et al., (2020) note that the uniqueness of the approach comes from how the following elements (some practical, some theoretical) are woven together.

Inhibition ('inhibiting') in the AT context means learning to not react immediately to a stimulus.

Direction ('*directing'*) in the AT context means learning to project conscious thoughts to improve the alignment of the head-neck-back system.

Primary control is the name proponents of the Technique give to the fundamental significance of a certain relationship of body parts, primarily the head-neck-back (HNB) relationship.

End-gaining: fixing on a goal; end-gaining is often associated with tension. *Means-whereby*: considering the intermediate steps need to reach a goal and *directing* while doing so.

The use of the self: the general quality of how someone does what s/he does – self-management. This often relates to the quality of alignment of the HNB-relationship and the *primary control.*

Unreliable sensory awareness: habitual self-management can mean that awareness of the quality of the use of the self can become compromised. Recognising *the role of habits* is central to applying the Technique.

Use affects functioning: how an individual does what s/he does (the quality of the person's self-management or *use*) influences her/his functioning.

2.1 Theoretical and conceptual frameworks

A **theoretical framework** is derived from an existing theory (or theories) in the literature that has already been tested and validated by others and is considered acceptable in the scholarly literature (Grant and Osanloo, 2014). It will be argued that due to the very nature of psycho-physical re-education, challenges exist to developing a valid theory of the Alexander Technique. Parallels to the challenges of defining well-being can be pinpointed. These difficulties may be connected to *Homo sapiens* as a highly evolved, complex, psycho-physical and habitual species with a great range of individual levels of awareness that lives in a wide variety of social-cultural contexts. Creating a solid theory of the Alexander Technique and its concepts has also been hampered because it has not been possible to validate some of the central tenets of the Technique, above all, the 'primary control'. Cacciatore et al., (2020) suggest this is because the Technique was 'ahead of its time' and the scientific technology needed for verification is only now becoming available. This neither diminishes the discoveries F.M. Alexander made, nor the benefits of learning Alexander's technique. It is in the area of praxis where the Technique has, since its inception in the late 19th century, made its mark and continues to make its mark. A theoretical consideration of Alexander's discoveries, however, reveals broader implications for the potential impact psycho-physical education might have if it's almost exclusive practical niche was widened.

A **conceptual framework** is described by (Miles and Hubermann, 1994:20), as a *'system of concepts, assumptions, and beliefs that support and guide the research plan'* which furthermore '[lays] *out the key factors, constructs, or variables, and presumes relationships among them'* (Miles and Hubermann, 1994:440). Camp (2001) explains a conceptual framework as a structure of what has been learned to best explain the natural progression of a phenomenon that is being studied[9]. There are numerous, well-documented 'Alexander experiences' that people learning it have reported: '*feelings of lightness… changes in states of awareness'* (Johnson, 2019:35) which can be described as phenomena. Ben-Or (2018) describes a sense of freedom and lightness of movement that she never had before experienced and a new sense of effortlessness. For the above reasons, presenting a conceptual and not a theoretical framework in this thesis seems appropriate.

A descriptive conceptual approach suits the linear, consecutive realm of the written word. However, an academic discussion of the practice of the AT, its teaching which communicates via spoken language and gentle, mindful touch, is poorly suited to such an undertaking. Jones and Glover (2012) have highlighted the lack of discourses our culture has for touch. With this in mind, it is clear that the written word can only do limited justice to transporting the AT concepts, principles and its praxis. The Technique relies primarily on *practical experience* to convey meaning and is therefore neither easily theoretically grasped nor represented in words. John Dewey acknowledges this:

> *'For although there is nothing esoteric in his teaching, and although his exposition is made in the simplest English, free from technical words, it is difficult for anyone to grasp its full force without having actual demonstration of the principle in operation. And even then, as I know from personal experience, its full meaning dawns upon one only slowly and with new meanings continually opening up.' (Dewey in Alexander, 1923, xxi).*

Illustrating the practicalities of psycho-physical re-education

The following text is interspersed with reflexive and practical descriptions of psycho-physical re-education to address the chasm between a practice and writing theoretically about it. These reflective boxes also highlight the researcher's *'own position and interest … to explicitly situate* [her]*self within the research'* (Hertz,1997:viii) as an experienced AT practitioner.

[9] Cambridge Dictionary: *A phenomenon is something that exists and can be seen, felt, tasted, etc., especially something unusual or interesting.* https://dictionary.cambridge.org/de/worterbuch/englisch/phenomenon
Oxford Dictionary: *A phenomenon a fact or an event in nature or society, especially one that is not fully understood.* https://www.oxfordlearnersdictionaries.com/definition/english/phenomenon accessed 30.5.2020

Reflexivity is addressed fully in section 4:1. By including descriptions of the living processes the Technique touches and imbuing the written word with descriptions of experience, it is hoped to convey how the underlying concepts flow practically into one another. The Technique's concepts are interdependent and entwined, and cannot be separated out and individually theorised. Carrington (1992) notes that one of the biggest handicaps of gaining an understanding of the Technique is the instinctive chopping up and separating parts of an issue. The 'holistic suchness' of the AT, it is proposed, mirrors the essential nature of human beings. Recognising this may also be of importance in understanding why defining well-being is so challenging (Dodge, Daly, Huyton, et al., 2012; Wadephul et al.,2020): in a person, multiple internal and external variables and stimuli are continually interacting on conscious, semi-conscious and sub-conscious levels. These fluctuate daily, hourly, even from minute to minute.

In the final section of this chapter the range of realms that the AT can practically touch is considered in a review of some of the research on the subject. In the following, the Alexander Technique concepts and principles are considered.

2.2 The AT: terminology and concepts

Often discoveries and innovations enter mainstream practice without identifying tags and being named after a founder. An example is the benefit of empathy, which Carl Rogers discovered and verified in the 1950s. This has not happened with Alexander's findings for various reasons (Hanefeld, 2016). Over-reliance on the founder creates difficulties in adequately expressing the practical discoveries that Alexander made without falling back on Alexander's story (Tarr, 2011). Nevertheless, for want of a better means, aspects of Alexander's story will be related in the following although linking back to Alexander seems to be a factor hindering the passage of his discoveries into humankind's general body of knowledge (Hanefeld, 2016). Notably, Dimon (2015) is treading a path to distance himself from Alexander pointing in his work to the field of psycho-physical education but not the founder. In doing this, he is carving out a territory for the field by not using only the method's brand name, *The Alexander Technique*.

F.M. Alexander had already developed his concepts and his practical technique by the end of the 19th century (Alexander, 1910). This, as Macdonald, (1989:75) suggests, compromises the following elements:

- Recognition of the force of habit
- Inhibition and non-doing
- Recognition of faulty sensory awareness
- Sending directions
- The primary control

The first four points on Macdonald's list are the Alexander principles central to his practical method. The order of these points in the following text is irrelevant as during practical work they merge into one another altering their emphasis depending on the situation. The last point, the *primary control*, addresses the presumed fundamental significance of the musculo-skeletal head-neck-back (HNB) relationship and a certain relationship of these parts to one another. Using the AT principles evokes perceivable and visible changes in this relationship that exists in all vertebrates. In this thesis, the HNB-relationship of the bipedal primate, *Homo sapiens* is under consideration with a focus on how the demands of the postpartum might affect it. Improvement of the quality of the *primary control* is assumed by proponents to provide, in time, benefits to functioning.

In the following, Macdonald's terminology is related to the broad concept of self-management as described in Ch.1. Cohen (2019) points out that several of the AT principles are to be found but with alternative vocabulary in the realm of science[10] and are found straddling the fields of psychology, physiology, neuroscience and biomechanics. This is unsurprising when the broad understanding of self (as understood in psycho-physical education) and *use* is factored in. She also notes that the scientific field linking these areas is motor control and adds that the overlapping disciplines linking these areas of knowledge are rehabilitation and exercise science. The realms that psycho-physical re-education covers are summarised in Fig.2.1.

[10] https://www.alexandertechniquescience.com/general/overview/science-catches-up/
Accessed 20.3.2019

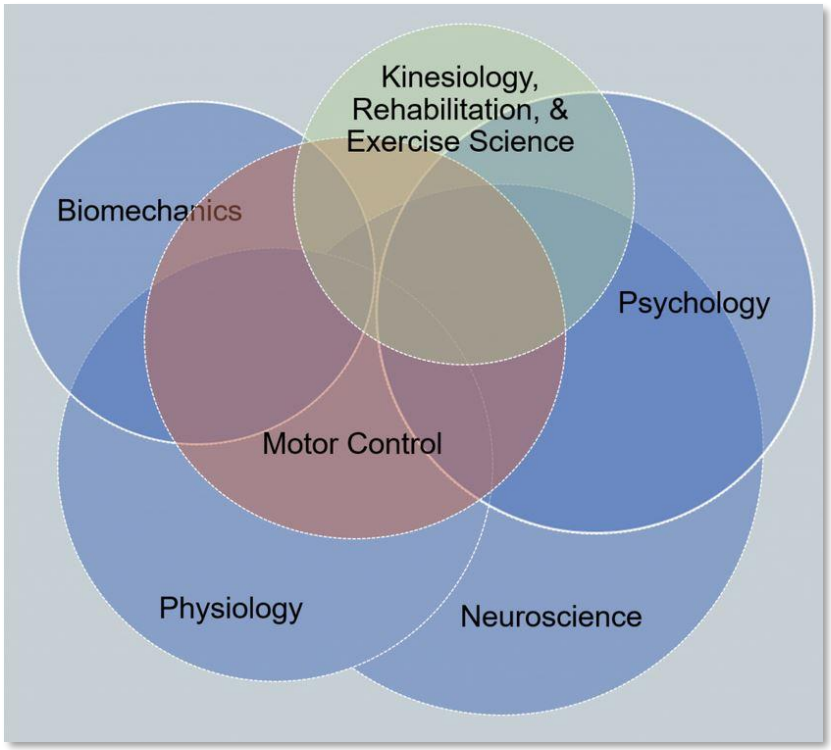


Figure 2.1 Cohen (2019) fields in the Alexander Technique

Basic fields are blue, applied fields in green, and inter-disciplinary fields in red

2.3 Use of the self and the *use affects functioning* concept

F.P.Jones (1975), a researcher looking at the scientific basis of the AT, describes the term *use* as the total pattern characterising the person's response to stimuli. He sees *use* as subject to internal and external influences. Cohen (2019) sketches out, referring to her figure, (Fig. 2.1 above) that the depicted research fields cover stress, intention, inhibition, mindfulness, coordination, posture, balance, and movement. How these variables link to Jones' understanding of *use* becomes clear if one of the variables that Cohen lists, stress, is briefly considered: a stress-resilient person (ideally) manages stressors consciously and (ideally) does not use dysfunctional stress-management strategies. That (ideally) represents a total pattern of *use* which can be viewed as an aspect of good *use* (which may nevertheless vary from day to day depending on other variables). Similar considerations for all the variables Cohen lists could be undertaken whereby a total pattern of self-management could be observed and potentially quantified.

However, because individuals vary, criteria and indicators of good *use*, (possibly similar to the variables affecting well-being), are difficult to standardise and define. Alexander succinctly describes this intricacy: *'the living psycho-physical organism* [is] *the sum of a*

complex of unified processes' (Alexander, 1941:xxxvi). Gaary (2016) lists symptoms of end-gaining which seems to cover aspects of what proponents of the Technique understand as poor *use*. End-gaining is defined by F.P. Jones (1997:210) in detail as,

> *'An orientation towards an end to be achieved, which distracts the person from the steps (means-whereby) needed to achieve the end. An end-gaining orientation prevents the application of conscious control and may lead to uncoordinated use'.*

Gaary's (2016) list of symptoms of end-gaining includes:

- increased muscular tension/force
- result orientated thinking
- narrowed focus of attention
- repetition of ineffective tactics to achieve the desired result
- decreased coordination
- decreased self-awareness
- decreased creativity and choice
- increased anxiety and frustration

Using working at a computer example to illustrate this further, it would mean the following: typing fast with more muscular effort than really required, trying to finish quickly, losing contact to oneself and needs (for rest, food or drink) while continuing typing, fixating, (becoming inflexible in mind and body), trying hard, and becoming anxious as a deadline approaches. This *use* could be associated with stooping and forward head posture (FHP), which can be frequently observed in people working at a PC, leading to a transient loss of well-being. Two dynamic models of well-being are discussed in Ch. 9 and these models have interesting common ground with Alexander's concept of *use*.

Leidlmair (2020:24) in a paper yreconsidering Being-in-the-World suggests that there is a revival of phenomenological approaches in the literature on cognition and learning. He suggests that Heidegger's work plays a decisive role and that,

> *'Essential to our being in the world is a tacit practical know-how that we use in the course of solving our problems in everyday life. Our relationship to the surrounding world is therefore in the first place not a theoretical but a practical one.'*

The approach Alexander took and using his method takes seems to neatly fit within such a supposition.

Evidence for the *use* affects function concept

A range of studies have been published, suggesting that habitual forward head posture (FHP) is associated with various health concerns. Baer, Vasavada, and Cohen (2019) report results suggesting that neck posture is influenced by the anticipation of stepping and in this paper the authors discuss three studies proposing that postural control and postural alignment (which are usually typically considered separately) might be linked. Taken together, the results from the cited, robust studies (Kang, Park, Lee et al., 2012; Kim, Kim, Jung, 2013; Jacobs, Dimitrova, Nutt et al., 2005) suggest that stooped forward postural alignment reduces postural control. These trials are critiqued in Appendix 1, to avoid detail taking the present discussion in a tangential direction.

Repetitive strain injuries are potentially also examples of poor *use.* They are caused by repetitive movement, sustained or constrained postures, and forceful movements as well as stress and unfavourable working conditions (Cheung, Fung, Ip, et al., 2008). Sixty per cent of all occupational injuries are caused by repetitive strain (Hamel, Ross, Schultz, et al., 2016). The same study recommends management with medication, physiotherapy, or bracing with surgery reserved for cases that do not respond to treatment. This treatment list seems to illustrate the absence of a self-management concept (as understood in this thesis) for potentially use-related issues. De Quervain's tenosynovitis ('mother's thumb') is a painful issue where tendons from the thumb to wrist become inflamed and rub against the 'tunnel' enclosing them. Sensations from discomfort to severe pain on the thumb side of the wrist can result. The case for modifying *use* and improving functioning to deal with RSI was taken up by the Swiss Army Knife company, Victorinox, which brought the Technique to the workplace by introducing AT-coaching as Balance Time[11]. The report cites the HR department as stating that '*the helplessness we had with problems caused by RSI has been blown away*' leading to reduced absenteeism (p.176).

Cacciatore, Gurfinkel, Horak, et al., (2011) studied a physical aspect of *use* by assessing the dynamic regulation of postural tone. They defined this as the baseline muscular activity that supports the body against gravity and underlies readiness to move. These researchers found that teachers of the AT were able to reduce resistance more than control subjects and this

[11] Report on this at: http://balance-time.ch/wordpress5/wp-content/uploads/CPapers.extract.VOL1pp.169-791.pdf accessed on 25.12.2020

seems to indicate more physical flexibility. Furthermore, in a case study with a woman with chronic BP and a 25-year history of it took a course of Alexander lessons, she became better at reducing her automatic postural coordination and balance. Her BP decreased markedly (Cacciatore, Horak, & Henry, 2005). The key result here seems to be the association of more dynamically modifiable postural tone which, in turn, leads to an aspect of improvement of functioning: more postural flexibility and possibly with better *use* in the sense of less tension. This seems to be a step towards operationalising the concept of *use* – but only the physical side of it. A later study by Woodman et al., (2018) demonstrates self-efficacy and self-care increase as a result of AT lessons, which could be seen as a step towards operationalising *use* from the non-physical realm.

Concepts with similarities to Alexander's concept of *use* can be found in mainstream healthcare approaches and research. For example, lifestyle modification (Langhorst, Mueller, Lütge et al., 2007) alludes to changing self-management. The main difference with this approach to an AT approach is the presence (or absence) of an integrated, sustainable *means* whereby modification is (or is not) consciously addressed.

Reflexive Box No. I

I have been writing for well over an hour now and my back has just started to twinge on the lower right, probably because I am twisting a little to the left; there are two monitors on my desk and neither is directly in front of me. I have started to strain while thinking about how to express myself and correcting what I have so far written. This was the 6th hour today in front of the computer. The quality of my use is declining because I am getting tired, even though I took breaks. I have started end-gaining. Time to stop for today.

In the above passage, declining functioning is described as the researcher's conscious psycho-physical self-management loses quality due to tiredness. The result (speaking as a teacher of the AT) was the habitual contraction of back muscles which caused mild discomfort. This tacit knowledge of *use affecting functioning* is unique, with its richness of detail and nuances, to the field of psycho-physical education. AT users develop an understanding of how to improve their functioning by working on their *use*. While this is not a quick and straightforward process, it appears to be sustainable. The results of the ATEAM trial, (Little, Lewith, Webley et al., 2008), the largest RCT on the AT to date, showed that chronic BP days which limited function (initially over 21 days per month in participants) was reduced to an average of three days of per month by 24 Alexander Technique lessons, with the effect still there a year after

completion of lessons. Comparing these results with usual GP care (control) which showed little change, the results of this trial suggest the potential long term benefit of AT lessons for people experiencing chronic non-specific lower BP. This trial is discussed in detail in section 2.10 of this chapter. People taking AT lessons and using the Technique become increasingly aware of the inter-relationship of *use* and function and become skilled in modifying it; the role of awareness (as contrasted to unaware habitual *use*) is central. The ATEAM trial results appear to also provide evidence for this connection, as do the other studies reviewed in section 2.10. Psycho-physical education methodically addresses the subject of self-management and the role habitual behaviour, often imbued with unnecessary tension, plays. This praxis is considered in the next section which looks at habitual *use* and its central role in the AT.

Recognition of the force of habit in the use of the self and Alexander's discovery

Neal, Wood and Quinn, (2006:198) define habit as:

> *'response dispositions that are activated automatically by the context cues that co-occurred with responses during past performance.'*

Dimon (2015) points out that generally when doing something, we think we have thought about doing it. However, the choices we make stem subtly from mostly subconscious options that are open to us. Seen in this light, habits are not simply an inclination to think or do something in a certain way but the very means by which we carry out actions, but we are unaware of this. It was in the realm of subconscious habits that Alexander made his discoveries and developed his practical method while exploring his voice problems as a reciter in the late 19th century. Alexander uses the word habit in a wide sense, as being the embodiment of instinctive human reactions, often detrimental to *use*. He emphasises that habits are a constant influence (Alexander, 1941). Dewey, (1922/2011:42) defines habits as a propensity to act in a certain way, '*an acquired predisposition to ways or modes of response'* and states that '*Clearly the idea can be carried into execution only with a mechanism already there'* and that *'we may think of habits as means.'* Often, we become aware of habits only when they are no longer active; becoming aware of this connection is an aspect of taking AT lessons and is called faulty sensory awareness and is considered in the following section.

Faulty sensory awareness

Ballard (in Rennie, Shoop and Thapen, 2015:50) summarises the development of the Alexander Technique as follows:

> *'Alexander (1869 – 1955) was a lone investigator with a prime interest in finding a practical solution to an urgent personal problem concerning voice production. His unique research involving several years (1890 – 1894) of detailed self-observation in a mirror, later a triple mirror, together with mental reflection, reasoning and repeated experimentation (Alexander, 1932, Ch. 1) eventually led to success: the evolution of his technique and resolution of his voice problem.'*

The problem Alexander identified was a tightening of his neck and throwing his head back and down when using his reciting voice. This was coupled with a shortening of stature and the habitual *use* of his recitor's voice even included gripping the floor tensely with his toes and feet (Alexander, 1932, Ch.1). Recognising this pattern of tension as the cause of his voice problems by suppressing his larynx, he tried to *stop* this behaviour (Alexander, 1932, Ch. 1). He discovered that lengthening his back and putting his head forward and up interfered the least with his voice. However, Alexander could not directly *do* this lengthening, although he felt he was doing it. Observing in his mirrors, Alexander could see that what he *felt* he was doing was not what he actually *was* doing. Proponents of the AT call this phenomenon *recognition of faulty sensory awareness*: that we cannot rely on our sense of feeling right because it is habitual. This aspect of the AT is highlighted and underlined as it is central to understanding what it is about. An example: we may become aware of some tension pain in our neck, back or shoulder manifesting during an activity indicating we are doing something wrong with ourselves. That is, we feel 'right' until pain tells us we are 'wrong'. Tension pain does not develop suddenly, but gradually, but we have little awareness of the issue until pain manifests.

Taylor (2009) defines proprioception as the sense enabling the perception, location, movement, and action of body parts. A complex set of sensations, including perception of joint position and movement, muscle force, and effort are included in proprioception arising from signals of sensory receptors in the muscle, skin, and joints, and motor output signals. Proprioception enables us to judge limb movements and positions, force, heaviness, stiffness, and viscosity. It combines with other senses to locate external objects relative to the body and contributes to body image. Proprioception is closely tied to the control of movement and, from an AT point of view, it can become unreliable[12].

[12] **Reflexive footnote.** I experienced a clear moment of habituated proprioceptive dysfunction after the home birth of my third child. Used to having a large baby bump, standing at the kitchen sink a day after birthing, I found myself adopting the distance needed to reach the sink which was greater than necessary in my new postpartum state.

The quality and reliability of *sensory appreciation* is a fundamental aspect of Alexander's discoveries and the term already appears in 1908 in his writings Alexander (1910/2019). Dewey (in Alexander, 1923, xxi) speaks on this:

> *'defective and lowered sensory appreciation of judgement, both of ourselves and of our acts, which accompanies our wrongly adjusted psychophysical mechanisms… influences our every observation, interpretation and judgement. It is the one factor that enters into every act and thought.'*

One of the aims of taking AT lessons is to alter this condition and the first step is to raise self-awareness of habitual psycho-physical behaviour.

Reflexive Box No. II

Sue [13] came for a lesson recently and she looked tense, a frown on her face, her eyes narrowed. She spoke so fast, I could hardly catch her words. Reflecting how she was, she said life at work and home was difficult. She was aware that she was in a strained self-management mode and that she needed to change something but she did not know how. We did chair work, sitting down on a stool and standing up again from it, repeating the process of inhibiting the impulse to 'do' and sending the directions to improve her head-neck-back alignment. At any time, she could look over to a mirror placed at 90 degrees to her side. This was there for her to compare how she subjectively felt with more objective visual feedback. As her tension lessened, she felt collapsed but could see in the mirror that this was not the case and she found that surprising. The habit of holding herself had lessened, her use had improved but her kinaesthetic sense registered 'wrong' although she was now more 'right'. After working with her lying down in semi-supine on the teaching massage table, getting up from it was difficult. She initially felt she couldn't. I encouraged her to separate her intention to move from the actual activity, visualise it, <u>not</u> <u>want</u> to do it, look out to her surroundings, direct and then … let getting up 'come'.

The ideomotor principle and ideomotor action

The process described at the end of Reflective Box No. II brings the concept of ideo-motor action and theory to the agenda. Work on ideo-motor theory has been used to mean different things over the years (Stock and Stock, 2004). According to the understanding used in this thesis from Koch, Keller, & Prinz (2004), the ideomotor theory of action control means

[13] Pseudonym, permission given to use the story, in her third year of lessons.

that performing a movement is motivated by the intention to produce a result or *effect* in the environment. This ideomotor theory proposes that actions are represented in a cognitive form in terms of their anticipated consequences, or *effects*. Understood like this, *thinking* of the intended effect can cause the activity or movement that produces this *effect* and spells out that a person selects and initiates voluntary actions by activating an anticipatory representation of the activity's intended effects. This then triggers the execution of the associated movement. Studying himself while trying to discover how to *not* put his head back and down, shorten his torso, etc., Alexander, in the decisive moment of using his reciting voice, observed '*instinctive misdirection'*, and *'instinctive response or reaction'.* He could not control his motor actions via his will. He,

> *'concluded that if I were ever to be able to react satisfactorily to the stimulus to use my voice I must replace my old instinctive (unreasoned) direction… by a new conscious (reasoned) direction'* (Alexander, 1932:39).

Ballard (2015) takes up ideo-motor action in an AT context. She notes that a client can sometimes experience a temporary sense that it is impossible to do something after AT work, as described at the end of Reflective Box no. II. This change, (usually an improvement) in *use* is incompatible with habitual *use* leaving someone momentarily at a loss and unable to employ familiar motor patterns. Ballard (2015) also notes that Alexander, probably without realising it, had been seeking to discover and overcome the universal question of how to gain conscious control over human reaction, voluntary action and movement. Furthermore, she notes that his research upon himself involved a quest for a reliable process to facilitate skilled performance which could avoid maladaptive habits and be recalled at will. Only by *not* reacting to the internal stimulus, (his intention to speak with his recitor's voice) and consciously directing his activity for improved *use*, and, importantly, *keeping an option open for doing something else*, could the original 'free and undisturbed' motor pattern be accessed and executed, one without habitual tension patterns. The procedure he discovered and developed into a technique appears to 'deactivate' the unconscious adverse motor habits *associated* with the cognitive representation of his intention to use his actor's voice, which hindered him reverting to what he called instinctive misdirection.

Traditionally trained Alexander teachers continue to use the procedure Alexander developed which gradually solved his hoarseness during performances. Using their hands and instruction through dialogue, they convey how habitual *use* can be inhibited and specific thoughts (*directions*) for more lengthening (less tension and shortening) in the HNB-relationship are projected by both teacher and client. Awareness of the intention to do arises,

for example, to get out of a chair, the impulse to do it is stopped (inhibited), new *directions* for the HNB-relationship are projected again, the option to do something else is kept open, inhibition is applied again, perhaps several times, and then the activity is allowed to 'come'.

2.4 Inhibition, non-doing, *directing*

This section more closely considers the actual skills someone applies with awareness in everyday life when using the Technique. The concept of ***inhibition*** means: *'stopping in relation to performing an action at a habitual or subconscious level'* Dimon (2015:263). Alexander described inhibition as: '*a question of learning to withhold consent and thus not doing a thing in the old way'* (Binkley, 1993:63). Inhibition is, therefore, practically and conceptually connected to becoming aware of end-gaining attitudes and behaviour. The role of awareness in learning the Technique is central. The practice of inhibition can also be understood as an initial pause to stop *after* the stimulus to act (either internal or external) comes into consciousness. This is especially relevant as the Libet experiment suggested that unconscious processes initiate volitional acts milliseconds *before* they come into consciousness [14].

Cacciatore, Johnson, & Cohen (2020) see the AT process of inhibiting as possibly undoing or preventing unnecessary tensing, meaning in an AT lesson this may also refer to preventing the planning of an action, such as rising from a chair using a matching strategy; with this proposition, these authors distance themselves from ideo-motor concepts. The Alexander process of inhibition may also refer to a more general intentional calming of the nervous system (Nichols in Rootberg, 2018).

In the realm of psychology stopping before one reacts is known as *executive inhibition*, and is one of a variety of executive functions that control behaviour, an established subject within cognitive psychology and neuroscience [15]. Meyer and Bucci (2016) consider response

[14] Benjamin Libet (1916 – 2007) scientist in the field of human consciousness. During the Libet test subjects were connected up to a brain scanner and asked to flex their wrists when they wanted to. They watched a special clock to record the time at which they made each decision to flex. Libet found that test subjects reported that they made a decision to flex, on average, about 0.15 seconds before their muscles actually flexed (after correcting for the 0.05 second error of subjects). However, their brain showed signs of "ramping up" to flex (he calls this the "Readiness Potential", or RP), on average, about .55 seconds before their muscles flexed (Libet, Wright, and Gleason, 1982).

[15] Executive functions make it possible to mentally play with ideas; taking the time to think before acting; meeting novel, unanticipated challenges; resisting temptations; and staying focused. Core EFs are inhibition [response inhibition - self-control, resisting temptations and resisting acting impulsively - and interference control (selective attention and cognitive inhibition)], working memory, and cognitive flexibility (including creatively thinking "outside the box," seeing from different perspectives, and quickly and flexibly adapting to changed circumstances). Stress, lack of sleep, loneliness, or lack of exercise impair EFs meaning social, emotional, and

inhibition an important component of adaptive behaviour. The development of self-control and self-regulation during childhood are skills that are learnt early in socialisation (McClelland, and Tominey, 2015). We can, therefore, say that the AT concept of inhibition is one of the skills which is potentially the easiest to link to other fields and is perhaps the most familiar. The upsurge of mindfulness training and meditation practice in recent years is also witness to this, as is the growing interest in Buddhism in Western society where presence and being, not reacting and *doing* are reoccurring themes (Pickert, 2014). Mindfulness in this thesis is understood as non-judgmentally observing the continuous stream of internal and external stimuli in the moments they arise. This understanding is based on the Buddhist scholar explanation for the term as 'mere observing' an object without interfering (Baer, Smith, Hopkins, et al., 2006). Evidence for mindfulness meditation-related benefits to executive functioning, the processes which are important for much of human volitional behaviour has been focussed on by Gallant (2016). This review paper looked at evidence for mindfulness meditation-related benefits to executive functioning, processes which are important for a realm of human volitional behaviour. Miyake, Friedman, Emerson et al., (2000) have shown that executive functions involve three distinct domains including inhibition, working memory updating, and mental set-shifting. Considering these separable domains, Gallant's review applied Miyake et al.,'s (2000) fractionated model of executive functioning to the mindfulness literature. Results suggest a relatively specific as opposed to general benefit resulting from mindfulness, with consistent inhibitory improvement, but more variable advantages to the updating and shifting domains.

Conscious access to 'non-doing behaviour' appears to be a desirable facet as well as a factor contributing to general well-being, hence (presumably) the increase in interest and mindfulness praxis (Kabat-Zinn, 2011). Someone taking AT lessons practices cultivating such an attitude and this can, with practice, eventually also be described as a way of being and become an aspect of constructive *use.* Coming to quiet is a deep level of inhibition and Alexander's assistant Margaret Goldie (Robb, 1999) put this at the centre of her teaching and it became her hallmark.

The ***directions*** that Alexander used following inhibiting the impulse to use his reciting voice were: *'I let my neck be free … to let my head go forward and up… to let my back lengthen and*

physical health for cognitive health is an issue. EFs are trainable and can be improved with practice. (Diamond, 2013)

widen…' (Macdonald, 1989:68). A further *direction* involves thinking the knees away from the hip joints. The *directions* then become:

> *'let the neck release to allow the head to go forward and up in such a way that the back can lengthen and widen and the knees release forward and away'* (Battye, 2016: 23).

Cacciatore et al., (2020) envisage the AT process of *directing* involving applying specific intentions to postural tone, body schema, and spatial awareness. *Directing* is a skill that becomes independent of words as learning the Technique advances. As *Dennis, (2018) explains* if *the experience and the idea merge, words become relatively unimportant. He adds that words point to ideas but are not ideas. Directing* as a conscious activity then becomes a question of awareness and is another example of the experiential, tacit knowledge (which is challenging to research and difficult to describe in words) that using the AT involves. On a superficial level, we can safely say that language has a directive function in our lives. *Directing*, as understood as an AT skill, therefore seems to address something fundamentally human about use of language and conscious control. How the *directions* combined with inhibition unfold their effect is not clear [16]. They may perhaps be seen as two sides of a coin which avoid activating adverse habitual motor habits: inhibiting is coupled with directing – is coupled with inhibiting – is coupled with directing, and this combined process reduces disturbances reinstating optimal (and undisturbed) ideo-motor patterns.

Proponents of the AT see optimal functioning gradually decreasing during a lifetime as habitual behaviour increases and becomes more established (Woods, Glover and Woodman, 2020). Small children have not yet developed use-related tension issues such as NSLBP. Fig. 2.2 shows a small child reaching out to touch the water from a fountain. The lengthening back and head moving away from the trunk and the arm moving away from the left shoulder are tangible qualities of the child's *use*. The figure has a natural elasticity about it. Maitland, & Horne (1996) note that Alexander discovered that if the head-neck relationship works in a co-ordinated way, the rest of the body also works more naturally - as it does in young children.

[16] In Study 1 several participants engaged in sense-making of how the AT works.

Figure 2.2 Good use in a small child

Photo: N.Hanefeld, 2018

A further question surrounding the topic of *direction* regards the good *use* of a teacher and how this *direction* is 'transferred' to the client via a teacher's hands during a lesson. Students of the Technique recognise a tangible quality in the hands of experienced teachers (Rutherford, 1994). Furthermore, the topic of priming (seeing an AT teacher with good *use*) cannot be left out of the equation, although effects have not been researched [17].

While simplifying the Alexander *directions*, Cohen, Gurfinkel, Kwak et al., (2015) taught participants with Parkinson's disease two sets of instructions during quiet standing and step initiation. In a later paper using these *directions*, Cohen (2019) defined *direction* as the psychomotor intentions that influence postural tone. In both papers, *Pull up* instructions relied on common concepts of effort to improve posture and *Lighten Up* instructions were based on the AT. Baer et al., (2019) describe that Parkinson's disease is associated with stooped postural alignment, increased postural sway and reduced mobility. Results indicated that conscious thinking of *lightening up* is associated with reduced postural sway, reduced postural tone, greater modifiability of tone and a smoother centre of pressure trajectory during step initiation as commented in section 2.10. The *Lighten Up* postural instructions were associated with a reduction of excess tension while encouraging length. While both sets of instructions resulted in increases in upright postural alignment, only the *Lighten Up* instructions led to the additional benefits mentioned above. Findings appear to have been

[17] Priming is a phenomenon whereby exposure to a stimulus causes a response without conscious guidance or intention (Bargh and Chartrand, 2000).

confirmed with a more recent study with healthy older adults as study participants (Cohen, Baer, Ravichandra, et al., 2020). Thinking of upright posture as effortless may reduce excessive co-contractions and improve static and dynamic balance. Prevalent thinking of upright posture as something inherently effortful may make balance worse. Ballard (2015:68) summarises bringing about action in a coordinated manner using inhibition and direction:

'We prevent (refrain from, inhibit) over-promptness of response, project the background thoughts… [directions], attend confidently to the intended outcome, give unconditional consent and it is done, (i.e. it happens in the best way currently possible).'

Reflexive Box No. III

Anthony[18] taught me like no other client the essential importance of inhibiting and directing while teaching. Not only teaching him how to inhibit and direct, but applying these procedures myself while teaching. It is part of an AT lesson to gently stop a client if they act without inhibiting their own habitual pattern of movement and directing when they move to and from a chair. That is the essence of the practical work. When we did chair work, Anthony would sigh with frustration when I stopped him and lean on my hands, in silent protest. I knew that I should not react to his behaviour but his non-verbal insistence was loud. The AT-process annoyed him, I got the message and it was a strong stimulus. I was patient and clear but had to inhibit and direct (for months during lessons with him) to not react to his behaviour.

After several months he changed from being quiet and introverted to being able to openly share observations about how his self-management was changing in everyday life. Further down the timeline, he became light and astute in my hands, responding to the most subtle messages that my hands were sending. The protests are things of the past. He is more aware, happier, less critical and, above all, less tense. Along with his better use, his functioning (he no longer has backache) and well-being has improved.

2.5 The 'Primary Control of use'

Alexander's discovery of combining inhibiting, directing and avoiding end-gaining, gradually reinstated his fully-functioning recitor's voice. The developed procedure meant he had found a conscious, sustainable practical method so that his system was no longer marked by a tense neck, a habitually thrown back and down head which suppressed his larynx, pulling up his

[18] Pseudonym, permission to use story given.

chest and gripping the floor with his feet when using his stage voice.[19] This was the habitual behaviour pattern he identified as the cause of his hoarseness. Through his discovery of inhibition and *direction* which Dimon (2015) sees as affecting a fundamental organising principle of human action and movement he could intentionally direct his head forward and up from his torso and lengthen his back and widen his shoulders. He had discovered how to initiate a chain reaction of stopping tensing and using his self inappropriately. Superficially, this led to a 'better' posture and this is possibly the reason why the AT sometimes becomes simplified, for example by the NHS, as *'improved posture and movement teaching'.* [20]

Alexander called this process or mechanism (or phenomenon) the *'Primary Control of his use in all his activities'* (Alexander, 1932:30). The concept of the *primary control* is, however, debatable and perhaps the most controversial within the field of psycho-physical re-education. Alexander referred to it initially in his third book not as something relative but as a specific instance, akin to an 'on-off switch'. Westfeldt (1964/1998) felt Alexander damaged his work in the way he spoke of the primary control as something identical with the Central Control (*'Zentralapparat'*) discovered by Rudolf Magnus. Magnus' discovery of a central control for postural mechanism was used by Alexander and others as scientific proof of Alexander's concept of the primary control. The term 'central control' was used in England to refer to Magnus' discovery of the location of various postural reflexes in the brainstem, between the upper cervical cord and the most anterior part of the mesencephalon (midbrain). However, his research was done on decerebrate guinea-pigs, rabbits, cats, dogs and monkeys. The role of stretch, postural, righting, tonic and anti-gravity reflexes in the AT procedure leading to a re-alignment of the HNB-relationship has not been conclusively clarified and remains an unsettled issue.

Carrington (1992) sees the primary control concept nuanced and as a psycho-physical process manifesting in physical change. Carrington's description of the primary control includes muscular activities and relationships controlled by thoughts, including wish and intention. Furthermore, he sees a large element of the primary control as involving automatic, mechanical and involuntary aspects of behaviour with indispensable voluntary components. There is evidence that Alexander revised his use of language referring to the primary control in the 1940s saying the primary control as such does not exist but it is something relative

[19] Variations on this habitual misuse of the HNB-relationship are to a greater or lesser degree always present in modern *Homo sapiens.* Tinbergen (in Barlow, 1978, Ch. 27:234-255) has considered the reasons for this. He sees a sedentary way of life is a major contributor to this phenomenon. *H.sapiens* still being in the process of becoming fully upright he sees as less of a contributor.

[20] https://www.nhs.uk/conditions/alexander-technique/ accessed on 12.9.2020

(Dennis, 1999). However, his third and fourth books had been published and Alexander had already qualified the first generation of teachers. The terminology had been born. Dennis (1999) argues that the word 'control' can be a noun or a verb and that such an ambiguous term makes it ill-suited for communicating theory. Initially, Alexander wrote of 'primary movement' (Alexander, 1910:158).

Evidence is emerging which seems to support the concept of the *primary control* in some of its facets. Loram, Bate, Harding, et al., (2017) found evidence for the central role of the neck in movement control. These researchers, in a trial with novice and professional violin players as participants, found a causal relationship between voluntary regulation of neck muscles and global control of movement. Findings suggest that inhibition targeted at the neck muscles reduced the overall cost of movement, including less muscle tension, a lower level of arousal, and less compressive force on the chinrest of the violin. Results also suggested that inhibition led to an overall improvement in balance. Weaker inhibitory control is correlated with forward head posture (FHP) and neck shortening before stepping as Baer et al., (2019) found. FHP, therefore, seems to disrupt the optimal working of the *primary control.* This ultimately relates to physical well-being, which in turn relates to general well-being.

Figure 2.3 illustrates some visible changes initiated in someone without AT experience and immediately after a fifth lesson. In the second photo, there appears to be more tonus in the upper back which seems to be lengthening, the shoulders are less rounded, the head tends away from the torso and is positioned with less FHP. Of special interest is the change of facial expression which gives the impression of more alertness. The latter seems to point to the holistic psycho-physical aspect of the AT with changes through taking lessons not restricted to the physical realm.

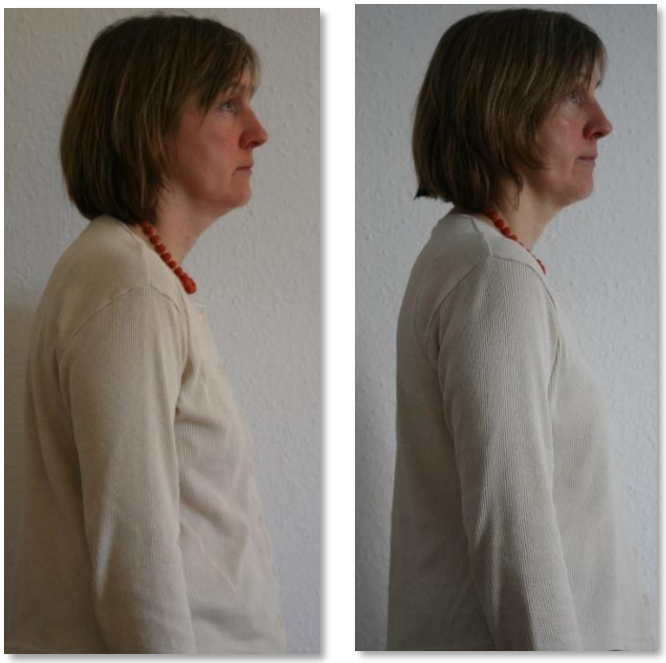


Figure 2.3 Before a first AT lesson and after the 5th.

Photos: N.Hanefeld, 2010, photos published with permission.

Dimon (2015) suggest this is a restoration of the primary control which includes an improved, more balanced alignment of the HNB-relationship and a certain relationship of body parts which can be called a psycho-physical phenomenon. The multiple factors playing into creating the phenomenon have not been elucidated, nor has the mechanism. The *primary control* cannot be located, it does not reside in a particular part of the neck or spine and Dimon (2020, webinar) suggests is a mind-body behavioural system. It seems to exist, it can be observed, experienced and the effects of it can be researched. A refined practical procedure that can be taught, learnt and practised leads to the observable and perceivable changes in this system. Influencing the *primary control* seems to be the pivotal practical knowledge that Alexander's psycho-physical education has which cannot (as yet) be theoretically explained [21]. It is the central theme of the Alexander Technique and appears to be the fundament upon which the results of using the method reside leading to alterations in *use* which then lead to changes in functioning.

The second set of photos (Figure 2.4) illustrate the alteration in the alignment of the head-torso relationship that the AT can facilitate. The photos also seem to suggest that the

[21] To give an indication of the multiple issues flowing into the concept of the *primary control*: Dr Theodore Dimon presented a series of webinars in spring 2020 looking at this concept comprising twelve one-hour sessions only on the primary control.

realignment of the HNB-system into lengthening through the Technique is not just physical but involves the whole person; the whole self.

Figure 2.4 Before a first AT lesson and after the third.

Photos: N.Hanefeld, 2010, photos published with permission.

The *primary control* is an ambiguous term for reasons explained; it will nevertheless be used in this thesis for want of a better term. Referring only to the HNB-relationship would be too anatomical, although Cacciatore et al., (2020) do so in their paper discussing potential mechanisms of the AT as they strive towards a comprehensive neurological model, seemingly excluding the holistic nature of the phenomenon. These authors do, though, suggest that the body axis plays a central role in the AT because of the critical function of postural tone in this region, due to the spine's instability and its central location, which require that axial tone mediates interactions between limbs. The challenges in understanding central aspects of the AT appear to remain on the drawing board.

2.6 Means-whereby and end-gaining

These concepts are not mentioned in Macdonald's list on p.37 list but do belong to the AT. Alexander called *directing* his new means whereby he could perform an activity without activating adverse habits of *use* (Alexander, 1932). F.P. Jones (1976:211) describes the 'means-whereby' principle as,

> *'The coordinated series of intermediate steps which must be accomplished in order to attain an end. The means-whereby principle is the recognition in practice that these intermediate steps are important as ends in themselves, and the most important step at any time is the next one. Application of the means-whereby principle involves awareness of the conditions present, a reasoned consideration of their causes, inhibition of habitual end-gaining responses to these conditions, and consciously guided performance of the indirect series of steps required to gain the end.'*

In everyday life, we are often unconsciously in an end-gaining mode: this can be a source of stress, often associated with tension and a decline in the quality of *use*. Trevelyan, (1991) describes using the AT leading to experiencing greater ease. Ballard (2015) notes that the AT quality of movement and action may appear to other people calmer and more considered. These descriptions seem to portray both improved *use* and better functioning. The means-whereby principle links practically to inhibition and avoiding end-gaining and also relates to aspects of well-being. Dennis (1999) sees skill as a unifying concept comprising that which an AT teacher and client are striving to attain, both together in lessons and as individuals. He sees these skills as an ultimate art in the use of the self. Woodman et al., (2018) found results suggesting that with these AT skills, self-efficacy and self-care increase. A key aspect of well-being is empowerment, having a sense of agency, and is discussed in Ch. 7, section 7.5. Carrington (1989:7) summarised the impact AT can have on well-being:

> *'Alexander made certain unique discoveries and observations about the health and well-being of the individual and he evolved a practical technique for putting these findings into effect.'*

Language sometimes reflects implicit human knowledge. States relating to emotional well-being in idioms such as *to get cold feet*, (to be anxious), *to get something off one's chest*, (share problems) *keep one's chin up*, (trying to be cheerful) are examples. The psycho-physical nature of humankind is suggested in this kind of language as well as the inseparability of body-mind that the AT ascribes to.

2.7 The working conditions of the postpartum and end-gaining

The working conditions of the postpartum involve numerous stimuli that can challenge a mother's self-management. A crying baby can provoke the mother's habitual response to reactively quieten her infant without consciously considering her *use* and means-whereby.[22] Other variables, activities and situations typical for the postpartum which can present challenges to good *use* and provoke end-gaining responses are considered in the following.

Pain is a strong stimulus and it can affect posture, mobility, mood and hence well-being. Perineal pain and trauma affect approximately one-third of primiparous women, an episiotomy is the most common cause (Francisco, Kinjo and Bosco et al., 2014). Healing after a caesarean section also involves unanticipated and unwanted adverse physical health outcomes (Kealy, Small, and Liamputtong, 2010). Pain during breastfeeding can influence mood, sleep and bonding (McClellan, Hepworth, Garbin et al., 2012). The most common breastfeeding problems are sore nipples and painful breasts (Fahey and Shenassa, 2013; Hjälmhult & Lomborg, 2012). Little information was found in the selected review articles on maternal self-care in the early postpartum by Lambermon, Vandenbussche, Dedding et al., (2020) on how women dealt with breastfeeding problems and pain.

Care work Habitual posture during feeding and carrying the baby, which usually takes up many hours a day during the first year postpartum, can tax the optimal alignment of the HNB-relationship through FHP and disrupt the primary control. This may become a source of postpartum NSLBP or hinder the healing of pregnancy-related NSLBP and seems to be an unresearched area.

Postpartum fatigue McGovern, Dowd, and Gjedingen et al., (2006) found that well over 50% of women reported fatigue at five weeks postpartum. Richter, Krämer and Tang et al., (2019) reported that sleep deficit hits a high at three months postpartum but can last up to six years after giving birth. Sleep deficit appears to play a role in the development of new-onset depressive symptoms in the postpartum period (Dennis and Ross, 2005). There is a body of evidence reporting that self-efficacy is lowered by fatigue (Giallo, Cooklin, Dunning et al., 2014; Runquist, 2007). This, in turn, possibly affects self-care abilities.

The numerous physiological changes which take place during the puerperium cannot be seen as isolated from the social and personal changes after giving birth (Harrison, 2000). Some of these changes may be accompanied by uncertainty, tension and fear.

[22] In German, breastfeeding is *Stillen*. *Stillen* also means to quieten as in the English word *still.*

These emotional variables can affect a woman's self-management in a multitude of ways and can also lead to a decline in the quality of *use* and functioning. Possibly, all the above factors, pain, fatigue, physiological changes, social adaption in the family and care work may play in simultaneously and influence a woman's *use* in the postnatal phase the closer a postpartum woman is to birthing and the nature of that experience (positive or negative).

2.8 Other CAM approaches compared to the AT

How does the AT differ from other approaches that are available? The over-lap with osteopathy is a one-to-one, individual, hands-on approach. Eisenreich (2010) examines similarities between both these approaches and concludes that unconscious, disadvantageous patterns of movement are the cause of deficits in functioning that both the AT and osteopathy aim to improve. The main distinction between osteopathy and the AT is that osteopathy is a form of treatment administered by a health-care provider, an osteopath, whereas the AT ascribes to an active learning process conveyed by a teacher to acquire a set of aware skills to address detrimental self-management patterns and habits. Research into Yoga has been extensive and, in a review, Field (2016) points to the different types of Yoga, for example: Hatha, Ashtanga, Vinyasa and Iyengar and that Yoga sessions are highly variable ranging from individual to group practice sessions. Studies suggest it is a safe and effective way to increase strength, balance and flexibility (Amin & Goodman, 2014; Grabara & Szopa, 2015). These specific targets are not something the AT ascribes to but the literature on Yoga reveals that *use,* as understood from an AT point of view, can be improved by practice which constitutes an over-lap between the two approaches, for example, behavioural flexibility, improvements in mental health and well-being (Gard et al., 2015). The main difference to the AT is that Yoga uses exercises (asanas, poses) which the AT does not ascribe to. Yoga has a long history and tradition and has become widely known. Pilates uses a combination of around 50 simple, repetitive exercises to exert the muscles (Kloubec, 2011) also distinguishing it from the Alexander Technique which does not involve special exercise. The AT also does not include meditation which delineates it from mindfulness meditation practice although there is some overlap with mindfulness practice as is discussed in this thesis. A review paper on the health benefits of Tai Chi and Qigong by Jahnke, Larkey, Rogers, et al., (2010) conclude that research has demonstrated significant and consistent results of their benefits. Like Yoga, Tai Chi and Qigong are approaches that established themselves in Eastern cultures and have only recently become popular in the Western world. Larkey, Jahnke, Etnier et al., (2004) describe Tai Chi and Qigong as a new category of exercise using some form of

body positioning with a focus on breathing and a calm, or clear state of mind to achieve relaxation. The AT does not ascribe to movement exercise but again, an overlap can be pin-pointed in the clear state of mind and less tension aspects of these approaches. In a critical overview comparing the AT with the Feldenkrais method Jain, Janssen and DeCelle, (2004) state that both approaches are somatic education techniques. A case is made in this thesis for not describing the AT as *somatic education* as this fails to acknowledge the psycho-physical approach of the AT. Overlap of these two methods is the desired outcome of improved functionality and movement awareness in everyday life and a *teaching* not treatment paradigm (Jain et al., 2004).

2.9 Summary of relevant research on the AT

To put the content and research in this thesis in context, studies and trials published in peer-reviewed journals on the AT and a review of that literature was necessary. Munn, Peters, Stern, et al., (2018) suggest that a scoping review is an optimal tool to resolve the size of a body of literature on a specific topic and reveal available studies as well as presenting a broad overview of its focus. These authors go on to delineate systematic reviews from scoping reviews; the former they suggest employs exacting methods to produce reliable results synthesising evidence-based healthcare research to be used to inform the development of reliable clinical guidelines. This aspiration was not a present requirement and therefore a scoping review is presented. The strengths and limitations of scoping reviews are summarised at the end of the chapter.

Peterson, Pearce, Ferguson et al., (2017) suggest that the main characteristic of a scoping literature review is to provide a flexible overview and an exploration of a broad topic. The same authors go on to suggest that such a review can account for the diversity of included relevant literature which encompasses different methods. This then is the aim of the following section. It gives an overview of published peer-reviewed research on the AT in recent decades; the largest trials to date on the subject are discussed in a narrative approach along with a study which was specifically drawn upon for the field-work of this thesis and articles where the psychological benefits of using the AT emerged in the findings. Table 2.1 below aims to give an impression of the breadth and scope of research done on the Alexander Technique. The table draws on two sources:

a) Articles which were included in a thorough systematic review published in 2012 by Woodman and Moore on evidence for the effectiveness of the AT in medical and health-

related conditions and b) the results of a search for the period after the publication of Woodman & Moore's (2012) review, 2012-2020. To locate articles for this time-period, the terms Alexander [and] Technique were used in the databases of CINAHL, Complete Medline and PsycINFO. The abstracts of the 49 publications were read to determine if the AT was the focus of the papers and whether the AT was being taught by qualified teachers or qualified teachers associated with researchers. Three papers were excluded: Banoofatemeh, Oreyzi, & Bahadoran (2017) as although they claim that results from their clinical trial show that the AT can promote mothers' psychological well-being and their pleasure of becoming a mother, their methods revealed that their intervention involved antenatal classes on posture which had been presented to participants by a midwife, not an AT teacher. The core AT concepts of inhibiting and *directing* had not been communicated. For similar reasons, Pour, Yazdkhasti and Oreyzi et al., (2018) was excluded. *The Use of the Alexander Technique in Nonburn Complex Wounds,* (Maher and Farroha, 2017) was likewise excluded.

To aid orientation in the table, studies with a primarily quantitative research approach examining the more physical aspects of the AT are coloured in orange (back pain, gait, movement, respiration). This division is not always simple and clear, balance being such an example, exemplifying the psycho-physical nature of the subject. Publications on Parkinson's disease are marked in blue to highlight that this realm has received, relatively seen, quite a lot of AT research attention. The order in the table is not alphabetical. It has been left in the original order of results that came up to authentically convey the outcome of the literature research.

Table 2.1 An overview of relevant literature on the Alexander Technique

Authors	Area	Title
Vickers, Ledwith F, Gibbens et al., 1999 (unpublished UK hospital report)	Chronic BP	The impact of the Alexander Technique on chronic mechanical low back pain.
Stallibrass et al., 2002	Parkinson's disease (PD) RCT	Randomized, controlled trial of the Alexander Technique for idiopathic Parkinson's disease.
Little, Lewith & Webley et al., 2008	Chronic BP - RCT	Randomised controlled trial of Alexander Technique lessons, exercise and massage (ATEAM) for chronic and recurrent back pain.
Dennis, 1999	Balance in the elderly	Functional reach improvement in normal older women after Alexander Technique instruction.
Austin & Pullin, 1984	Respiratory function	Improved respiratory function after lessons in the Alexander Technique of musculoskeletal education.
Austin & Ausubel, 1992	Respiratory function	Enhanced respiratory muscular function in normal adults after lessons in proprioceptive musculoskeletal education without exercises.
Batsons & Barker, 2008	Balance in the elderly	Feasibility of group delivery of the Alexander Technique on balance in the community-dwelling elderly: preliminary findings.
Reddy, Reddy & Roig-Frabcoli et al., 2010	Posture and surgical ergonomics	The impact of the Alexander Technique on improving posture and surgical ergonomics during minimally invasive surgery: pilot study.
Schulte and Walach, 2006	Stuttering	FM Alexander technique in the treatment of stuttering – a randomized single case intervention study with ambulatory monitoring.
Maitland, 1996	Adults with learning disabilities	An exploration of the application of the Alexander Technique for people with learning disabilities.
Stallibass et al., 1997	PD	An evaluation of the Alexander Technique for the management of disability in Parkinson's disease – a preliminary study.

Elkayam, 1996	Chronic BP	Multidisciplinary approach to chronic back pain: prognostic elements of the outcome.
Cacciatore, Gurfinkel, Horak et al., 2011a	Posture	Increased dynamic regulation of postural tone through Alexander Technique training.
Cacciatore, Horak, Henry, 2011b	Coordination, sit to stand	Prolonged weight-shift and altered spinal coordination during sit-to-stand in practitioners of the Alexander Technique
Cacciatore, Horak & Henry, 2005	Postural coordination	Improvement in automatic postural coordination following Alexander Technique lessons in a person with low back pain.
Fisher, 1988	Chronic pain	Early experiences of a multidisciplinary pain management programme.
Hollinghurst, Sharp, Ballard, 2008	Cost effectivness	Randomised controlled trial of Alexander technique lessons, exercise, and massage (ATEAM) for chronic and recurrent back pain: economic evaluation.
Yardley, Dennison & Coker et al., 2010	ATEAM experience, patients	Patients' views of receiving lessons in the Alexander Technique and an exercise prescription for managing back pain in the ATEAM trial.
Beattie, Shaw, & Yardley et al., 2010	ATEAM experience, professionals	Participating in and delivering the ATEAM trial: interventions for chronic back pain: A qualitative study of professional perspectives.
Scoping search results	2012-2020	
Valentine, Fitzgerald, Gorton et al., 2005	Music performance	The effect of lessons in the Alexander Technique on music performance in high and low stress situations.
Gibbs & Young, 2008	Work place tension, repetitive movements & stress	Work-related musculoskeletal disorders in sonography and the Alexander Technique.
Gibbs & Young, 2011	Work place tension, repetition movements & stress	A study of the experiences of participants following attendance at a workshop on methods to prevent or reduce work-related musculoskeletal disorders amongst sonographers.
MacPherson, Tilbrook, Richmond et al., 2015	Chronic neck pain	RCT Alexander technique lessons or acupuncture sessions for persons with chronic neck pain: A randomized trial. ATLAS

Woodman, Ballard, Hewitt et al., 2018	Self-efficacy, self-care, quality of life	Self-efficacy and self-care-related outcomes following Alexander technique lessons for people with chronic neck pain in the ATLAS trial.
Klein, Bayard, & Wolf, 2014	Systematic review	The Alexander technique and musicians: A systematic review of controlled trials.
Armitage, 2009 (unpublished thesis)	Psychological impact of AT lessons	Psychological change and the Alexander Technique
Jones and Glover, 2014	Psychological process underlying touch	Exploring the psychological processes underlying touch: Lessons from the Alexander technique.
Glover, Kinsey and Clappison, 2018	Older people, fear of falling	"I never thought I could do that…": Findings from an Alexander Technique pilot group for older people with a fear of falling.
Cohen, Gurfinkel, Kwak, et al., 2015	PD, postural alignment	*Lighten up:* specific postural instructions affect axial rigidity and step initiation in patients with Parkinson's disease
Cacciatore, Mian, Peters et al., 2014	Posture, movement	Neuromechanical interference of posture on movement: Evidence from Alexander technique teachers rising from a chair.
Hamel, Ross, Schultz et al., 2016	Gait	Older adult Alexander technique practitioners walk differently than healthy age-matched controls.
O'Neill, Anderson, Allen et al., 2015a	Gait	Effects of Alexander Technique training experience on gait behavior in older adults
Woods, Glover, and Woodman, 2020	What happens in AT lessons	An Education for Life: The Process of Learning the Alexander Technique.
Gleeson, Sherrington and Lo, 2017	Over 50s and visual impairment	Improving balance and mobility in people over 50 years of age with vision impairments: Can the Alexander technique help? A study protocol for the VISIBILITY RCT.
McClean, Brilleman, Wye, 2015	Patient experience	What is the perceived impact of Alexander technique lessons on health status, costs and pain management in the real life setting of an English hospital? The results of a mixed methods evaluation of an Alexander technique service for those with chronic back pain.

Long, 2015	Neck pain	Alexander technique for chronic non-specific neck pain
Gross, Mavichandra, Cohen, 2019 [23]	Carers of PD patients	Alexander Technique (AT) Group Classes: Feasible Intervention for Care Partners of People Living with Parkinson's
Gross, Cohen, Lazaro, 2020 [24]	PD	Poised for Parkinsons': Retention of Benefits from Alexander Technique Group Course for People Living with Parkinson's Disease
Cohen, Ravichandra, Trusty, 2018	Psycho-physical benefits for care partners of people with PD.	Alexander Technique Classes are a Feasible, Cost-Effective, and Promising Intervention for Balance in Older Women
Davies, 2020	Musician performance	Alexander Technique classes improve pain and performance factors in tertiary music students
Lauche, Schuth, Schwickert, 2016	Back pain	Efficacy of the Alexander Technique in treating chronic non-specific neck pain: a RCT
Eldred, Hopton, Donnison, 2015	Survey of users	Teachers of the Alexander Technique in the UK and the people who take their lessons: A national cross-sectional survey
Lawrence, 2015	Musicians, well-being	Alexander Technique may help reduce performance anxiety in musicians
Ketcham, Anderson and Hamel, 2017	Postural control	Alexander Technique Practitioners: Improved Postural Control Compared to Age-Matched Older Adults
Dennis & Cates, 2012	Asthma	Alexander technique for chronic asthma
Bjerken, Mello and Mello, 2012	Acting	Cultivating a lively use of tension: the synergy between acting and the Alexander Technique

[23] Conference presentation: 2019 International Parkinson and Movement Disorder Congress, September 22-26, 2019. Nice, France. https://www.mdsabstracts.org/abstract/alexander-technique-group-classes-are-a-feasible-and-promising-intervention-for-care-partners-of-people-living-with-parkinsons-disease accessed 7.6.2021

[24] Research poster presentation: https://www.archives-pmr.org/article/S0003-9993(19)31219-5/pdf Volume 100, issue 12, e193, December 01, 2019. Accessed 7.6.2021

The first striking things about the papers included in Table 2.1 is the relatively low number of studies and trials. In contrast, according to Jeter, Slutsky, Singh et al., (2015) a total of 486 articles were published on Yoga in 217 different peer-reviewed journals between 1967 and 2013. Toniolo-Barrios et al., (2020) also note that scholarly research output on mindfulness is constantly growing with 822 articles published between 2015 and 2019. Such rises in interest in the AT cannot be identified. The second thing that strikes is the range of fields in which the AT has been researched underlining the basic, generic nature of the Technique. Thirdly, it seems that the physical side of the benefits of the AT has received more research attention than the psychological. This may simply reflect that qualitative enquiry which does not use quantitative methods to collect data has only recently flourished (Gergen, 2015) and research into the AT has also been subject to research streams that emphasise quantitative approaches despite the method's psycho-physical roots. On the other hand, Eldred, Hopton, Donnison, et al., (2015) in a national cross-sectional survey found that nearly two-thirds of people who responded, 62% of individuals began AT lessons for reasons related to musculoskeletal conditions, back, posture, neck, and shoulder issues and pain. Other general issues made up 18%, (including well-being), were performance-related (10%, including voice-, music-, and sport-related), psychological (5%) and neurological (3%). The physical side seems to be the area for which the AT is known, the 'psycho' of the psycho-physical may be catching up and this thesis may potentially play a small role in that process. That PD has received AT research attention also strikes. This may have stemmed from promising results in this field done by Stallibrass et al. (1997, 2002) done which was taken up by others at a later stage.

The large well-conducted RCTs, (ATEAM and ATLAS) are now considered in more detail as they brought forth evidence for the potential benefits of using the AT connected to the physicalities of the postpartum. An overview of studies considering the psychological impact of the AT is also given in the following including a relevant unpublished work. Cohen et al.,'s work (2019) is likewise reviewed in more detail as the 'postural instructions' the study used were drawn upon in Study 2 of this thesis.

The ATEAM trial

Participants in the ATEAM study, (Alexander Technique, Exercise and Massage) the largest trial to date on the AT, were chronic non-specific lower BP (NSLBP) sufferers. This was a Medical Research Council and NHS funded trial, a well-conducted RCT with 579 patients, with a low risk of bias. Participants were people who had chronic or recurrent BP > 21 pain days a month for more than three months before joining the study. Groups were divided into

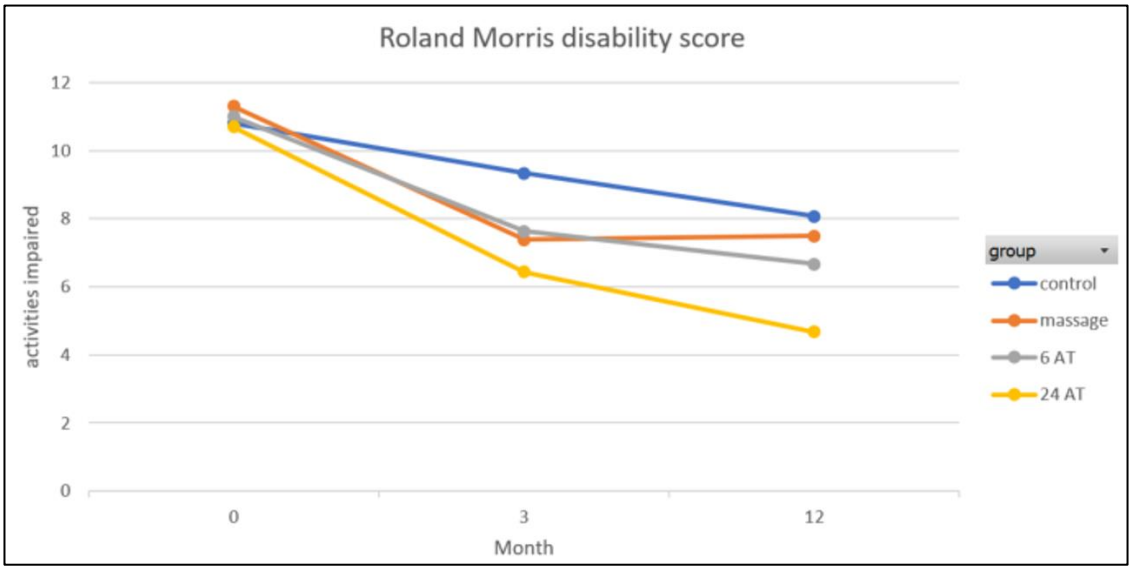
i) standard GP care

ii) usual care plus therapeutic massage

iii) usual care plus six one-to-one AT lessons

iv) usual care plus 24 one-to-one AT lessons

Groups v) – viii) were as above but with an additional exercise prescription. Measurements took place at baseline, 3 months and 12 months. Six AT lessons and exercise prescription produced a significant reduction in days of BP compared with the usual care group. Six lessons were 70% as effective as 24 AT lessons regarding reduction in disability and had an effect on and pain. Participant's pain in this latter group was reduced to an average of three days a month. The following figures illustrate the changes participants experienced through time.



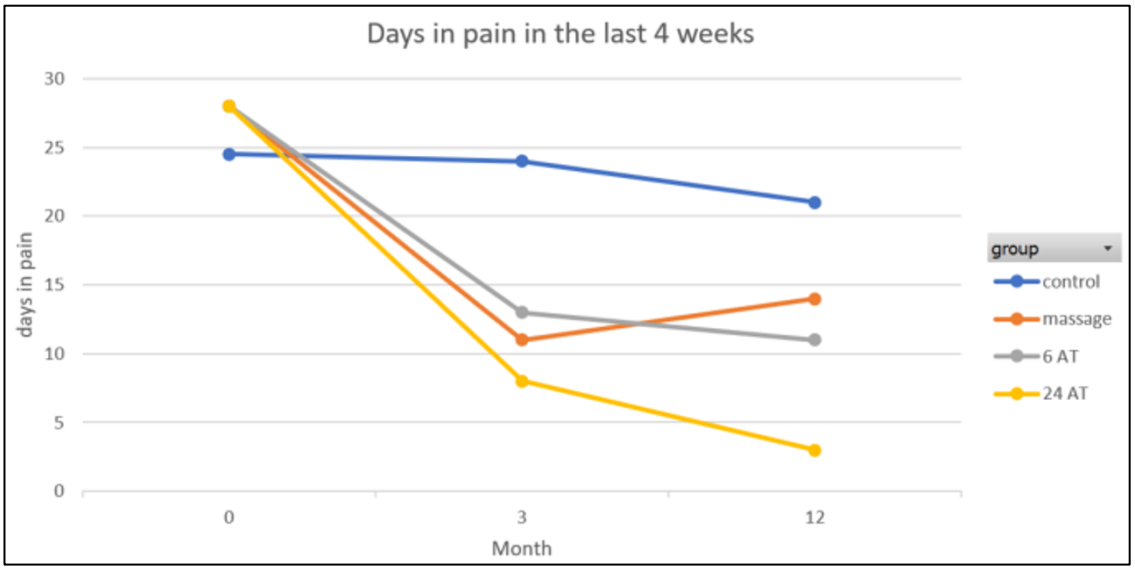


Figure 2.5 (i) and (ii) Summaries of the ATEAM results

Slides: Guillaume Bourgault, online presentation, 2020

Results from one-to-one lessons in the AT from registered teachers suggested long-term benefits which could not be attributed to a practitioner effect as the assessment took place months after completion of the lessons.

The ATLAS trial

The second-largest RCT on the AT involved patients with neck pain. This trial by MacPherson, Tilbrook, Richmond et al., (2015) also evaluated acupuncture sessions and compared these two approaches with usual care. The ATLAS trial (Alexander Technique Lessons and Acupuncture Sessions) included 517 people with chronic non-specific neck pain which had lasted an average of 6 years. The one-year finding was the main result. For both intervention groups, there were long-term improvements in pain and associated disability that were statistically significantly greater (and clinically relevant) than the group receiving only usual care. Woodman, Ballard, Hewitt et al., (2018) found evidence from the ATLAS trial that AT lessons promote self-efficacy and self-care and quality of life. The sustained, long-term benefit of lessons in the ATLAS trial is likely to be due, in part, to the participants' gain in self-efficacy.

Well-being and Alexander Technique studies

Leading on from the finding that the ATLAS trial findings suggested that AT lessons lead to a gain in self-efficacy, Stallibrass et al., (2002), in their qualitative self-report findings, found a higher coping ability and reduced stress in PD patients as a result of taking AT lessons along with a degree of improvements in balance, posture and walking. In a pilot study, Stallibrass, (1997) with seven individuals with Parkinson's disease showed significant improvements of associated disability following AT lessons in three of four validated self-report outcome measures, including one of depression. The well-being benefits of the AT were also found by Klein, Bayard, & Wolf (2014) in a systematic review of 12 studies of the AT and musicians up to February 2014. The review included five RCTs, five controlled, non-randomised trials and two mixed methods, and included unpublished dissertations. The review concluded that AT lessons reduced performance anxiety in musicians. Jones and Glover (2014), in a qualitative study, exploring the psychological process underlying touch, found evidence from individuals taking AT lessons that mood and confidence were impacted and how they communicated and related with themselves. A pilot study with older people with a fear of falling (Glover, Kinsey and Clappison, 2018) found evidence that group sessions in the AT had a positive impact on psychological well-being. Armitage (2008) reported that through lessons in the AT

self-awareness increased which helped people to be more comfortable in being themselves which included feelings, beliefs, values as well as more physical-comfort.

New directions for the Alexander Technique

Baer, Vasavada, and Cohen, (2019) looked at the effects of brief instructions on static and dynamic balance in healthy older adults. Nineteen participants practised three sets of postural instructions: *Light* instructions relied on principles of reducing excess tension while encouraging length and were based on AT *directions. Effortful* instructions relied on popular concepts of effortful posture correction: pulling up. *Relax* instructions encouraged minimisation of effort. Kinematics and muscle activity were measured. Results showed that thinking of upright posture as effortless might reduce excessive co-contractions and improve static and dynamic balance while thinking of upright posture as inherently effortful may make balance worse. These 'postural instructions' stemmed from a prior study, Cohen et al, (2015) titled *Lighten Up* on PD which found the *lighten up* instructions led to reduced postural sway, reduced axial postural tone, greater modifiability of tone, and a smoother centre of pressure trajectory when step was initiated. This, the authors concluded, possibly indicated a greater efficiency of movement. These instructions were used in Study 2 of this thesis and the illustration from the previous paper by these authors (Fig 2.1) was included in the written study information which was sent to participants. This is detailed in Ch.8.

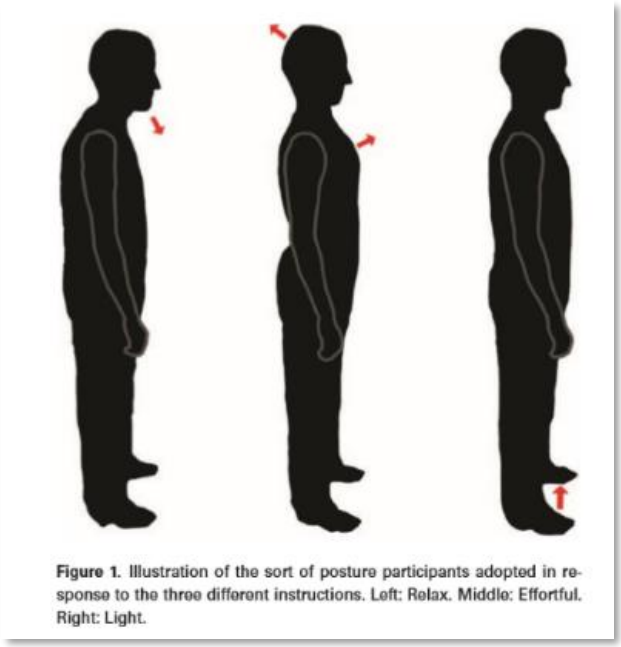


Figure 1. Illustration of the sort of posture participants adopted in response to the three different instructions. Left: Relax. Middle: Effortful. Right: Light.

Figure 2.6 From Cohen et al., 2015. Postural instructions

A final publication included in this brief review of the AT literature to be mentioned is by Woods, Glover and Woodman (2020) which attempts to communicate the ubiquitous, all-encompassing fundamental nature of Alexander's technique by sketching how lessons take place and which changes can develop and occur in a client through lessons. These authors point to a potentially fruitful avenue for further research as recent neuroscience developments.

Older publications

Before the period reviewed here the work of Chris Stevens, Frank Pierce Jones and Wilfred Barlow can be mentioned. The titles reveal the subject and focus of (some of) the research done by these teacher-researchers of the AT which is again the physical realm:

Stevens, Bojsen-Moller and Soames (1989) *Influence of initial posture on the sit-to-stand movement.*

F.P.Jones (1965). *Voice production as a function of head balance in singers.*

F.P. Jones and Gilley (1960) *Head balance and sitting posture: an X-ray analysis.*

Barlow (1956) *Postural deformity*

Strengths and limitations of the scoping review

O'Brien, Colquhoun, Levac et al., (2016) discuss the strengths and limitations of a scoping review. A suggested strength is the possibility of including literature on studies with a wide range of designs to potentially combine qualitative and quantitative approaches, such as the range of studies on the AT in this review. This is an advantage over the more rigid systematic review. Likewise, O'Brien et al. state research activity on a topic can be determined and the presented scoping review illustrated the low research activity on the AT. This, these authors suggest, are the intentions of a scoping review - rather than aiming to evaluate the quality of existing literature on a particular subject.

A further limitation of this kind of review is establishing boundaries to the study scope (O'Brien et al., 2016). The authors note that the variability in terminology and unclear definitions of concepts of interest, make identifying the study scope difficult. This was also a limitation of the present scoping review as not all papers use the term employed in the search (Alexander + Technique) in their titles: the list of included studies is therefore incomplete. Two examples illustrate this: A significant study by researchers (who are also teachers of the AT) Loram et al., (2017) called called *Proactive selective inhibition targeted at the neck muscles: This proximal constraint facilitates learning and regulates global control This proximal constraint facilitates learning and regulates global control* [25] was not included as

[25] This study suggests that neck muscle movement can be regulated voluntarily while maintaining task performance, in this case, playing the violin was studied. Secondly, the study suggests that there is a causal relationship between voluntary regulation of neck muscles and the global control of movement. The third point from this research is that proactive-selective inhibition which is targeted at the neck muscles reduces the cost of movement.

the term Alexander Technique was not used in the title**.** Likewise, the publication *Reductions in co-contraction following neuromuscular re-education in people with knee osteoarthritis* by Preece Jones, Cacciatore, Brown et al., (2017) is a study on the AT also not mentioning the method's name in the publication's title. Further such studies may exist. The conflicts between using a brand name (the Alexander Technique) and a field of human knowledge (psycho-physical re-education or neuromuscular re-education) already mentioned on p.37 resonate again. A further limitation of this scoping review is that only English language papers were included in the search later than the Woodman and Moore (2012) review.

Summary of the review of the literature on the AT

The evidence base for the effectiveness of the Alexander Technique is small but there are several high-quality studies within the body of literature making it up. *How* the range of positive findings were achieved in the diverse fields which have been researched is not understood. Woodman and Moore (2012) note in their systematic review that the physiological basis of the AT is unclear. Considerations on how the Alexander Technique might work is undertaken as part of the discussion of Study 1 (Ch. 7, section 7.4). A connecting variable running through these diverse studies may be the modification of the so-called *primary control* of participants (see section 2.6). This may, in turn, affect participant's conscious self-management (how someone does what s/he does) which in turn then affects functioning. The change in psychological well-being could be connected with the mindful aspects playing in which the AT initiates and the change in the type of attention that then occurs which is broad, not focussed. Suggestions contributing to this discourse are made in Ch.9. Speculations on how the AT might work point, however, seemingly to the connection between the concept of *use affects functioning* which was examined in section 2.3.

2.10 Chapter summary

In this chapter, the Alexander principles and their intertwined theoretical-practical applications have been introduced and the difficulties of using words for a practice and the experiences it evokes were articulated. The challenges of using the written word for theorizing on the AT was explained. Some of the AT's central concepts have not been scientifically verified and, because of this, and the phenomena that the work evokes, a conceptual and not a theoretical framework was presented. Learning the AT involves skills in thinking, moving, doing and being: learning to manage one's self more consciously and appropriately and with directed thinking. How this is practically approached in AT lessons was addressed in this chapter. The '*use affects function'* concept was explained and is further

elaborated in Ch.3 where examples appearing to support such a concept are given. A comparison of the AT to other CAM approaches was undertaken in Ch.2. How the AT and its principles relate to the working conditions of the postpartum was considered. A table listing peer-reviewed papers on the AT published since 1984 was given with detail of the largest RCTs on BP and neck pain as well as studies with evidence that the AT has a positive impact on well-being. Fig. 2.6 below summarises the AT principles and strives to portray the dynamic practical-theoretical nature of the subject.

The following literature review on postpartum lumbo-pelvic pain highlights that research focuses on diminished functioning, expressed as NSLBP and PGP and that a concept of *use* does not play a role in considering the causes of pregnancy-related and postpartum LPP.

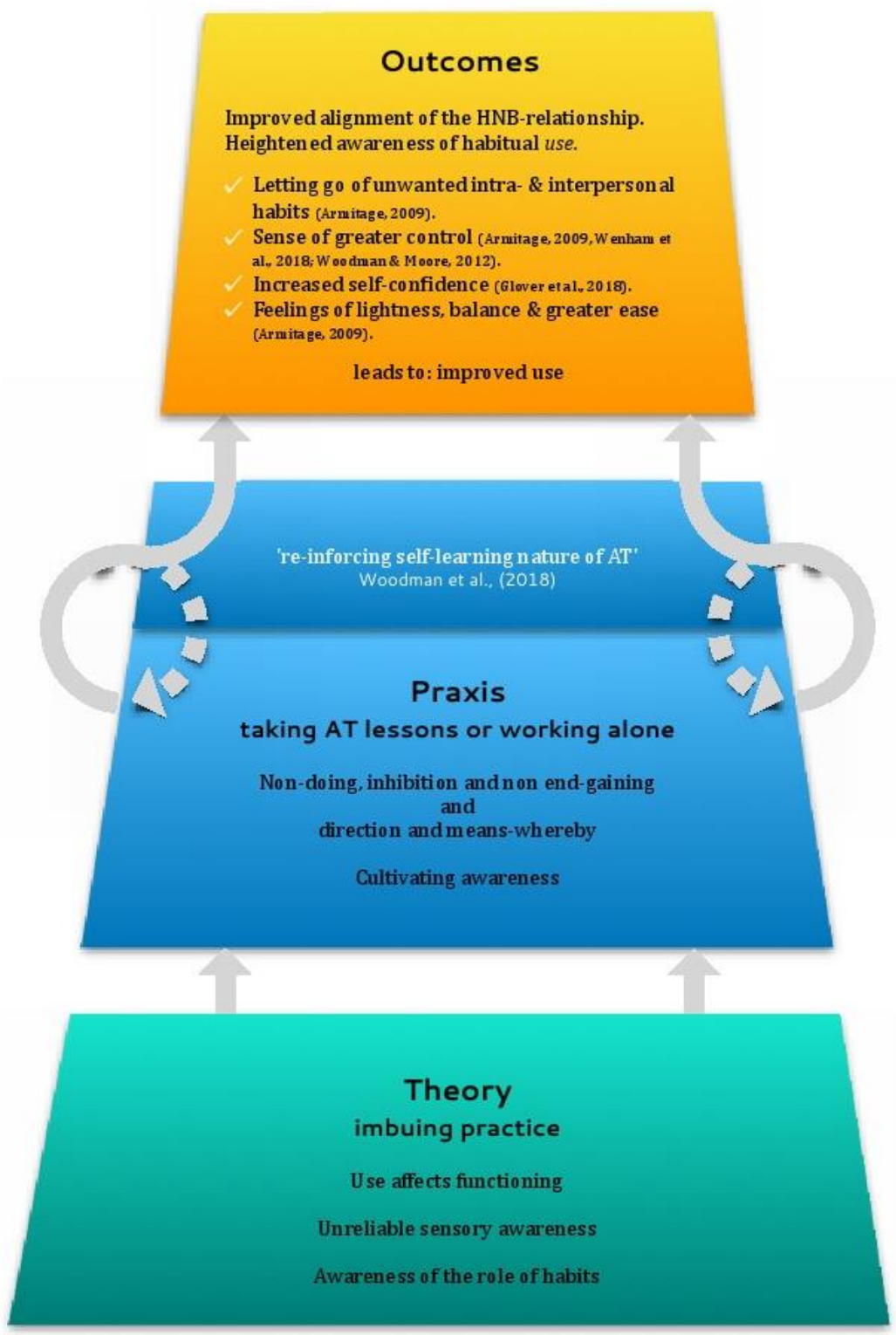


Figure 2.7 Theoretical and practical characteristics of psycho-physical re-education.

Design: Harald Gress, Freiburg

3 REVIEW of the LITERATURE

'Everyone is always teaching one what to do,
leaving us still doing the things we shouldn't do.'

Alexander (2000:47)

Abbreviations:

BP - back pain

LPP - lumbo-pelvic pain

LBP - lower back pain

NSLBP - non-specific lower back pain

PND - postnatal depression

This chapter is divided into two parts. The systematic literature review with the question '*can randomised controlled trials performed with women who have postnatal lumbo-pelvic pain published 2008-2018 provide evidence of effective new treatment methods?'* is preceded by a general review on the issues surrounding LPP. The subject of lumbo-pelvic pain is not limited to the perinatal period.

3.1 Pregnancy-related lumbo-pelvic pain: background

The postpartum is a psycho-physical experience and women's reality during this time includes a range of things in these realms that are exclusive to this phase of life. Issues to do with healing after birthing and sleep disruption due to infant care at night being two examples. Studies on pain issues connected with physical aspects such as breastfeeding and perineal care exist but are fewer in number, likewise, research on postpartum BP. In contrast, much research has been done on the psychological side of the postpartum and PND (Silverman et al., 2017; Huang et al., 2020; Alves, Martins, Fonseca et al., 2018). Compared to BP as a limitation to physical well-being, PND has received much attention as a limitation to psychological well-being. Figures about women experiencing LPP during the postpartum vary from 21%-82% (Bennett, 2014). Researchers frequently use the term lumbo-pelvic pain for PGP *and* NSLBP which have different aetiologies and different pain localisations. Various other terms are also used, creating ambiguity. PGP and NSLBP are not rigorously

differentiated in the maternal BP literature, as will be discussed in the following. Their different aetiologies require different treatment approaches but if they are not distinguished, appropriate treatment is barely feasible. In June 2018 a systematic search revealed only nine RCTs on postnatal back pain (BP) published 2008-2018 and one unpublished trial. An analogous search for the same time period for BP during pregnancy brought 36 RCTs to light suggesting that BP during pregnancy seems to have received more attention. Gutke et al., (2007) found results suggesting that PND is three times more prevalent in women with LPP than in those without. The importance of developing effective interventions to reduce incidence and alleviate LPP seems warranted. LPP is still often regarded as a local bodily phenomenon which hinders opening up the field to researching it as a psycho-physical issue whereby a holistic approach could potentially help. The strongest evidence for the AT being helpful in alleviating tension back and neck pain comes from two well-conducted RCTs which were reviewed in Ch.2. The RCTs from 2008-2018 within the field of postpartum LPP are reviewed systematically in the second half of this chapter

3.2 Diverse and diffuse terminology

As the lumbar spine becomes the fused sacrum in the pelvis, the area of the posterior pelvis is the spine, part of the lower back, and part of the pelvis. LPP can hence mean *only* pelvic girdle pain, as pain from in the pelvis can radiate into the lumbar back. LPP can also mean PGP *and* non-specific lower BP. The term *lower back pain* is often used in the literature without it being clear if the author is referring to pain stemming from the sacro-iliac joint in the pelvis or pain that 'only' stems from the lumbar spine, that is, non-specific lower back pain (NSLBP) - or both areas. The following list gives an overview of the diverse terminology used in the field:

- Low back pain and/or pelvic girdle pain: LBPGP (Vas, Aranda-Regules, Modesto et al., 2014).
- Pregnancy-related pelvic girdle pain: PPP (Mens, Pool-Goudzwaard, and Stam, 2009).
- Persistent pregnancy-related pelvic pain: PPPP (Torstensson, Lindgren, and Kristiansson, 2013).
- Pregnancy-related low back pain: PLBP (Wu et al., 2004; Peterson, Haas, and Gregory, 2012).
- Pregnancy-related pelvic girdle pain: PPGP (Verstraete, Vanderstraeten, and Parewijck, 2013).
- Low back and/or pelvic pain: LBPP (Close, Sinclair, Cullough et al.,2016; Mogren, 2006)
- Persistent pelvic girdle pain: PPGP (Bergström, Persson, Nergård et al., 2017).

Norén, Östgaard, Johansson et al., (2002) separated patients with pregnancy-related lumbar pain into three groups: those with lumbar pain (LP), those with posterior pelvic pain (PPP), and those with a combination of both. Torstensson, Lindgren and Kristiansson (2013) use the specific term 'sacral lower back pain'. If a woman has pain in the symphysis pubis it is clear that it stems from the anterior pelvis. Understanding the source of the pain is important to competently treat and relieve this complaint. Despite Nilsson-Wikmar, Harms-Ringdahl, Pilo et al., publishing an article in 1999 titled *'Lower back pain post-partum is not a unitary concept'*, disparity and lack of clarity remain some 20 years later. Hall, Cramer, Sundberg et al., (2016) published a systematic review with a meta-analysis on the effectiveness of complementary therapies for pregnancy-related back and pelvic pain in 2016. The authors note that debate continues as to whether maternal lower BP and PGP should be considered together or separately. As far as possible in this background to the systematic review of postpartum LPP, the attempt will be made to distinguish between NSLBP and PGP. Additionally, the question is raised as to why the life context of women in the potentially strenuous postpartum phase of life plays little role in the care and treatment considerations of LPP.

3.3 Definitions and aetiologies of pelvic girdle pain and non-specific lower back pain

Pelvic girdle pain is described in the European guidelines for its diagnosis and treatment as follows:

> *'(It) generally arises in relation to pregnancy, trauma, arthritis and osteoarthritis. Pain is experienced between the posterior iliac crest and the gluteal fold, particularly in the vicinity of the sacroiliac joints. The pain may radiate in the posterior thigh and can also occur in conjunction with/or separately in the symphysis"* (Vleeming et al., 2008a:794).

The diminished endurance capacity for standing, walking, and sitting when experiencing PGP is acknowledged in these guidelines.

Diastasis Symphysis Pubis (DSP) is

> *'a separate but related condition which can only be confirmed by diagnostic imaging when it is shown that there is an abnormal, pathological, horizontal or vertical displacement of the symphysis pubis'* (Coldron, Fishburn and Giffiths, 2018:2).

Non-specific (or mechanical) lower back pain also common in the general population, is described and defined by NICE (clinical guidelines, UK, 2009: section 2.1, online) as

> *'tension, soreness and/or stiffness in the lower back region for which it is not possible to identify a specific cause of the pain. Several structures in the back, including the joints, discs and connective tissues, may contribute to symptoms.'*

Both NSLBP and PGP exclude pathologies such a disc injury, sciatica, tumours, infection, fractures and osteoporosis. That many studies do not distinguish between NSLBP and PGP is recognised by Haakstad and Bø, (2015). They used a standardized questionnaire in an interview setting enabling distinction between these two conditions. The same paper reiterates that PGP has greater functional impairments than LBP. Various possible underlying mechanisms for LPP are proposed in the literature: bio-mechanical changes causing non-optimal stability of pelvic joints and/or inadequate motor control and stress of ligament structures as well as non-bio-mechanical (hormonally initiated) changes (Stuge, 2010). Others postulate that stretched abdominal muscles diminish their tone meaning they lose their ability to contribute to a neutral posture (Mahishale and Patted, 2014). Franke, Franke, Belz, et al., 2017:752) state that:

> *'the cause of lower back pain in pregnancy is unclear and appears to be nonspecific and may be related to changes in body posture with increased lumbar lordosis to balance the anterior weight of the abdomen'.*

Genetic, degenerative and metabolic factors are considered possibilities, as is a shift of the body's centre of gravity during pregnancy (Verstraete et al., 2013). Torstensson et al., (2013) also suggest tendinopathy as a cause: a single injection (via the vaginal wall) of a slow-release corticosteroid injection at the sacrospinous ligament insertion on the ischiadic spine reduced pain intensity. Simplistic concepts are also found in the literature:

> *'…low back pain merely due to lordosis resulting from pregnancy and childbirth which was intensified by foetus weight and position or labour processes in some mothers'* (Akbarzade et al., 2016:82).

Possibly, a combination of all factors to varying degrees may be causative. PGP usually means instability and dysfunction of the symphysis pubis joint and/or sacro-iliac joint and multi-factorial issues may be causative and it is seen as a specific form of lower BP but with more affliction and functional limitations than lower BP (Verstraete et al., 2013). *Use*-related factors are not considered in the absence of such a concept.

Previous observational studies have found evidence that leisure-time physical activity before becoming pregnant decreases the risk for developing PGP and/or LBP during pregnancy. These results may be explained by hypothesising that pregnant women with good physical condition are better able to adapt to the musculo-skeletal system changes for example, increased ligament laxity, gaining weight, altered centred of gravity, than sedentary counterparts (Mogren, 2008).

3.4 Prevalence and research

Due to the varying terminology used in studies (and presumably in practice and care), it is uncertain whether the terms used to refer to the same disorder. This is a dissatisfying situation, especially for women experiencing LPP and seeking help. Although they can occur co-incidentally, aetiologies differ for PGP and NSLBP and this lack of distinction may be echoing a lack of clarity in approaches to alleviating these disorders. Additionally, the issue arises as to whether the BP is *non-specific* or whether there is another cause. NICE guideline (2016) states that non-specific BP is not pain associated with potentially serious causes and is also called *mechanical*, *musculoskeletal* or *simple*. Tests provoking the pain and pain diagrams for self-reports are the only way to diagnose the pain's source with certainty (Pierce, Homer, Dahlen, et al., 2012a; Gutke, Lundberg, Östgaard et al., 2011). This may be a reason why estimates regarding the prevalence of the different pain sources greatly vary. Postpartum LPP often has its debut during pregnancy, occasionally during birth. Table 3.1 gives an overview of incidence, revealing the range of prevalence disparities within the field.

Table 3.1 Estimates of LPP, LBP and PGP prevalence; overview of the literature.

Authors	LPP		LBP		PGP		*n* =	When	Where	Study/publication type, notes
	AN	PN	AN	PN	AN	PN				
Wu, Meijer, Uegaki et al., 2004	45-50%	25%*				7%				Systematic review; 28 studies
Pierce, Homer & Dahlen et al., 2012b	71%		17%						Japan	71% period prevalence; point prevalence
Ando & Ohashi, 2009	72%						213	3rd. trim.	Japan	
Mogren & Pohjanen, 2005	72%						891		Sweden	CSS. 82.3% response rate; ant. & posterior pain
Gutke, Östgaard & Öberg et al., 2008	40 - 50%	33%						3 mths PP	Sweden	Cohort study
Vermani, Mittal, & Weeks et al., 2010	45%	25%				8-10%		1-2 yrs PP		Review
Vleeming, Albert & Ostgaard et al., 2008a					20%					European Guidelines, PGP treatment
Nilsson-Wikmar, Harms et al., 1999b	40 - 50%	25%				27%	219	av. 7.2 wks PP	Sweden	Pain provocation tests done
Pennick & Liddle, 2013			66%		20%		5121	12 - 38 wks		Cochrane Database of Systematic Reviews
Elden, Gutke & Kjellby-Wendt et al., 2013					30%	10%	530	"Long term"		70% response rate
Stuge, 2010a	25%	5%						12 mths PP	Norway	Non-systematic review, RCTs
Gutke, Lundberg, Ostgard et al., 2011		33%		11%		17%	308	3 mths PP	Sweden	40% moderate to severe disability.
Bjelland, Stuge & Engdahl et al., 2013						7.8%		18 mths PP	Norway	10,603 women questioned
Gausel et al. 2015	16% of women who had PGP in pregnancy had it 3 - 6 mths PP								Norway	Prospective cohort study
Larsen, Wilken & Hansen et al., 1999					16%		1600	at 2, 6 & 12 months PP 5%, 4% and 2%		
Bergström, Persson & Mogren, 2014						15.3%	176 out of 200 women, reporting continuous prenancy-related PGP at 14 mths PP			
Gutke, Boissonault & Brool et al., 2018	70 - 86%						869	30 - 38 wks gest.	**USA/UK	Sweden; lowest prevalence.
Lingutla, Pollock, & Ahuja, 2016					15 - 30%					SLR, meta-analysis, SIJ fusion
Bennett, 2014			82% LBP/PGP							SLR on RCTs - abdominal muscle strengthening
Bergström, Person & Nergård et al., 2017							624	12 yrs PP	Sweden	47.3% response rate

Abbreviations: AN = ante-natal /pregnancy, PN and PP = postnatal/postpartum, CSS = cohort study,

SLR = systematic literature review. gest = gestation *Immediately after birthing ** USA/ UK/Norway/ Sweden

Table 3.1 does, however, at least show agreement regarding higher prevalence during pregnancy as compared to the postpartum. The importance of investigating pregnancy-related PGP as distinct from lower BP within reported LPP is backed in the literature (Wu et al., 2004; Vleeming et al., 2008a; Gutke, Ostgaard, and Oberg, 2006). Even though European guidelines for the diagnosis and treatment of PGP [26] have existed since 2008, lack of clarity remains. NSLBP continues to receive much attention, as its prevalence worldwide is alarming. This attention has been associated with a call for the removal of harmful surgical interventions and practices (Boseley, 2018; Clark and Horton, 2018).

Confusion in the literature regarding postnatal LPP is acknowledged by some authors and the justified question posed why the published prevalences vary (Wu et al., 2004). These authors propose three reasons:

- Amount of diagnosis affects the rate of prevalence
- LPP for which help is sought and that which is recorded via questionnaires (which may exclude an analysis of symptom-seriousness), produces different values
- Pre-disposition like previous incidence of BP and strenuous work during pregnancy, which increases the likelihood of developing it, skews rates of incidence, as it is not fully pregnancy-related.

Wu et al., (2009) rate previous NSLBP incidence as increasing chances of having it during pregnancy threefold. Degrees and intensity of pain vary, not all LPP is strong enough to create a pain experience prompting a woman to seek treatment; equally, duration varies, making incidence additionally difficult to estimate. Evidence also exists that women put up with the pain, having been told by their health carers that it is a normal part of pregnancy and there is little one can do (Pierce, Homer, Dahlen et al., 2012). Prevalence may therefore be even higher. Evidence also exists indicating that pregnant womens expectations of care for PGP are not met and that knowledge about how to manage their condition is lacking (Wellock & Crichton, 2007). Expectations that women should accept pain are also found in the literature. Wu et al., (2004), write disturbingly that LPP can be regarded as a normal discomfort of pregnancy. Along the same lines, statements such as *'Most women consider low back pain as an inevitable part of pregnancy and, consequently, do not seek treatment'* (Akbarzade et al., 2016:83) exist.

[26] https://link.springer.com/article/10.1007/s00586-008-0602-4

The evidence base

15 systematic literature reviews could be located for 2008-2018 on LPP in pregnancy. Only two systematic reviews of RCTs could be found for this period on LPP for the postpartum: Ferreira and Alburquerque (2013) looked at six RCTs on the effectiveness of physical therapy for pregnancy-related low back and/or pelvic pain. Tseng, Puthussery, Pappas et al., (2015) reviewed RCTs on the effectiveness of exercise programmes on postpartum LPP and included four studies in their review. These two reviews, however, demonstrate the paucity of research into the physical side of the postpartum LPP: Tseng et al., (2015) included three studies that Ferreira and Alburquerque (2013) had already reviewed. Additionally, these reviews only address physical therapy and exercise as treatment. Ferreira and Alburquerque (2013) concluded that their review was inconclusive with respect to the effectiveness of physical therapy for pregnancy-related LPP and noted the lack of good quality studies in this field. They expressed praise for some studies with a bio-psycho-physical approach with an integrated model of function (Stuge, Veierød, Laerum et al., 2004; Bastiaenen et al., 2006; Bastiaenen et al., 2008). However, considering all study results, the authors found that effective treatment was not delivered in all cases. Their most important conclusion was that individual guidance and adjusted exercises might be more recommendable for PGP and the manner of performing the stabilising exercises could influence the results. Tseng et al., (2015) also lament the paucity of methodologically sound studies enabling researchers to come to robust conclusions regarding the effectiveness of postnatal exercise. A meta-analysis, for example, is not possible due to the variation in intervention components, outcome measures, follow-up times and study quality between the included studies. They conclude that estimates of effect in either direction cannot be made due to inconsistent findings. Against that backdrop, however, an individually tailored programme with stabilising exercises under guidance of a therapist with high treatment compliance was considered most effective for LPP.

LPP is a common issue that appears to be a significant and common issue even though precise numbers regarding prevalence are unclear. It is detrimental to the well-being of pregnant and postpartum women and it possibly plays a role in the development of postnatal depression (Gjestland, Bø, Owe et al., 2013). Others found postpartum depressive symptoms were three times more prevalent in mothers with LPP than those without (Gutke et al., 2007). Some authors have found evidence that puerperal BP is closely associated with PND (Angelo et al., 2014) and PND has consequences for mothers, babies and, of course, fathers. LPP is also a socio-economic factor due to sick leave. Noren, Lotta and Östgaard et al., (1997)

calculated a reduction of insurance costs from a successful intervention comprising 135 pregnant women to be approximately $ 53,000.

A standardised set of outcome measures with respect to LPP does not yet exist. During pregnancy and especially in the postpartum, LPP remains an under-researched issue, without suitable help to alleviate it - leaving millions of women experiencing it worldwide. Pierce et al., (2012) emphasise the internationality of pregnancy-related LPP and underline the need to explore it further.

3.5 How lumbo-pelvic pain is measured

Most commonly, a visual analogue scale, (VAS) is used to measure LPP (Gutke et al., 2010; Mohamed, El-Shamy, and Hamed, 2018; Kamel et al., 2016, Lee and Ko, 2015). Additionally, the Roland Morris Disability Questionnaire (RMDQ) is employed to assess self-rated physical disability due to LPP. This questionnaire is most sensitive for people with moderate discomfort due to chronic, acute or sub-acute lower BP and has 24 items related to a limited range of physical functions, which include walking, bending over, sitting, lying down, dressing, sleeping, self-care, and daily activities. The items in the RMDQ are qualified by the phrase 'because of my back pain' to distinguish BP disability from disability stemming from other origins (Roland and Fairbank, 2000).

However, as some studies (Pierce et al., 2012; Recknagel, Roß, Recknagel et al., 2008; Kamel et al., 2016; Gutke et al., 2010; Schwerla, Rother, Rother, Ruetz, and Resch, 2015) use the Oswestry Disability Index (ODI), which is recommended for more severe disability, and developed for people with chronic LBP (Roland and Fairbank, 2000), the difficulties in comparing results across studies again is apparent. Additionally, the McGill Pain Questionnaire is used by some researchers (Akbarzade et al., 2016). Mohamed et al., (2018) used the Back Pain Function Scale. The Pelvic Girdle Pain Questionnaire (PGQ) is used in research and clinical practice has items relating to activity/participation and bodily symptoms. It has reliability, validity, and feasibility (Stuge, Krogstad, Jenssen et al., 2017) but is not yet widely employed although it has shown acceptable responsiveness in women with LPP.

In the following review focusing on RCTs done in the postpartum period the conceptual gap regarding self-management (as understood in this thesis) and the concept of *use affects functioning* becomes more apparent.

3.6 A systematic literature review: randomised controlled trials on postpartum lumbo-pelvic pain, 2008-2018

3.6.1 Background and summary

Postpartum LPP prevalence is estimated to be around 25% (Wu et al., 2004; Vermani, Mittal, and Weeks, 2010; Nilsson-Wikmar, Harms-Ringdahl and Pilo et al.,1999). As women can have combined NSLBP and PGP and point prevalence varies, clarity as to how many women really experience it LPP postnatally is difficult to ascertain. For the years 2008-2018 (June), only two systematic reviews could be located on the topic using the databases Academic Search Premier, CINAHL, MEDLINE, PsycArticles. Consistent differentiation between NSLBP and PGP (different aetiologies requiring different approaches to relieve pain) is not yet established. This situation possibly muddies diagnosis as well as research in this field. Many women have had NSLBP before becoming pregnant and it is difficult to discern whether NSLBP in pregnancy is truly pregnancy-related. The fact that no definition exists as to what temporally comprises 'postnatal back pain' further compromises the field. Furthermore, the role of the potentially demanding postnatal period (carrying, nursing/feeding the baby, sleep disruption and deficit) in contributing to debut postpartum lumbo-pelvic pain or aggravating existing pregnancy-related non-specific lumbo-pelvic back pain appears a further under-researched aspect within a generally under-researched field. This review systematically surveys the field and evaluates the findings of RCTs done from 2000-2018 on postnatal LPP. The revied aimed to answer the question: *can randomised controlled trials performed with women who have postnatal lumbo-pelvic pain published 2008-2018 provide evidence of effective new treatment methods?*

3.6.2 Methods

Search methods Conducting a comprehensive literature search helps to identify current knowledge about relevant concepts and contexts and what is known and unknown in a particular field (Popay, Roberts & Sowden, 2006). To be included in the review, along with covering the topic of postnatal BP, the following inclusion criteria were set:

- the study had to be a randomised controlled trial
- had been published between 2008 and June 2018 in peer-reviewed academic journals.

RCTs provide an objective approach to addressing the research question about effective treatments.

RCTs were also chosen as the preferred study design as bias is reduced or avoided in RCTs since confounding variables are equally distributed between the intervention and control groups (Craig & Smyth, 2007). A third reason for deciding to review RCTs (and not for instance qualitative studies) was the potential for gaining clarity over a field which is wide-ranging. The researcher's unconscious positivist leanings are discussed in Ch.4 (section 4.2) and also influenced the decision which included the first field-work proposal.

An initial search using the terms [postnatal] and [postpartum] and [puerperal back pain] was conducted using EbscoHost databases (Medline/Cinahl) to source available literature. Following review of the titles and abstracts obtained from this preliminary search, plus analysis of the subject terms assigned to relevant articles, the appropriate search terms "postpartum" or "postnatal" or "after pregnancy" or "after birth", "backache" or "back-ache" or "pelvic girdle pain" were identified. The search concepts were then combined using the Boolean operators AND, with the operator OR used for alternative terms. Truncation was used to find alternative word endings to maximise search results. Phrase and proximity searching were additionally used to help narrow and focus the search further. The following terms were used in the search:

> *(postpartum or postnatal or "after pregnancy" or "after birth") AND (((back) N3 (pain) or backache or back-ache or "pelvic girdle pain")) AND TX ("randomized control* trial*" or rct or "randomised control* trial*" or "control* clinical trial" or placebo).*

The following data bases were systematically searched; brief reasons are noted why these data bases were selected.

- Academic Search Premier; multidisciplinary database, over 4,600 journals
- CINAHL; world's most comprehensive nursing and allied health journals
- Medline; provides authoritative medical information
- Psyc Articles; scholarly and scientific articles in psychology
- PsycINFO; literature in behavioural science and mental health

Hemingway (2009) [27] mentions the criteria of a systematic review being to interpret findings and present a balanced, impartial summary of the findings while considering any flaws in the evidence for which the above-mentioned tools were used.

This review, therefore, met the following criteria for Cochrane systematic reviews [28]:

- A clearly stated set of objectives with pre-defined eligibility criteria for studies
- An explicit reproducible method of searching for included trials
- A systematic search attempting to identify all studies which meet the eligibility criteria
- An assessment of the validity of the findings of included studies, and an assessment of the risk of bias
- A synthesis of the systematic presentation of the characteristics as well as the findings of all included studies

The criteria therefore also fit the description Kysh (2013) gives for a 'literature review'. The reason for choosing RCTs for the systematic part of this literature review can be summarized as follows: RCTs provide the best procedure for establishing causal conclusions and, ideally done, create a connection between the intervention and results. Meaning 'the intervention caused the results' and hence being able to indicate the value of an intervention. Having a control group leads to RCTs being widely put at the pinnacle (or being seen as the 'gold standard') for experimental research (Cartwright, 2010). The primary and initial aim of the review was to identify new effective approaches for postpartum LPP. At this stage of the PhD (during the first year), an interest in exploring the qualitative literature on LPP was not a consideration and the process, with pragmatism as the researcher's main paradigm, of opening up to qualitative research, was not yet even underway. This development is explored more fully in Ch. 4.

Search outcome

75 articles were found through the database search on 8. June 2018. Initially, abstracts of the located 75 papers were read. Nine studies were identified as RCTs that met the selection criteria. Three of these studies meeting the inclusion criteria were only available as abstracts and the authors were contacted, requesting the complete trials. The available full texts of

[27] http://www.bandolier.org.uk/painres/download/whatis/Syst-review.pdf Accessed 15.7.2018

[28] https://training.cochrane.org/handbook Accessed 31.7.2018

the selected studies were read and assessed for eligibility, and, as they met the criteria, they were saved and retained for use. The bibliographies of these studies were read revealing a thesis with an unpublished RCT on postnatal LPP from Germany. The author was approached and a request made for the full text which was received on 20. July 2018. The full text of the other paper originally only available as an abstract, also from Germany, was received on the same day. Following reading, it was found that both these studies were RCTs and, although one had not been published, it was decided to include it in the review. The study from Sakamoto, Nakagawa and Gamada (2018) which fitted the inclusion criteria, was initially excluded as it was not available despite twice approaching the authors via email with a request for the full paper. However, its content became available a year later and data was later included. Ten papers were ultimately included in the review. The following figure shows the selection process:

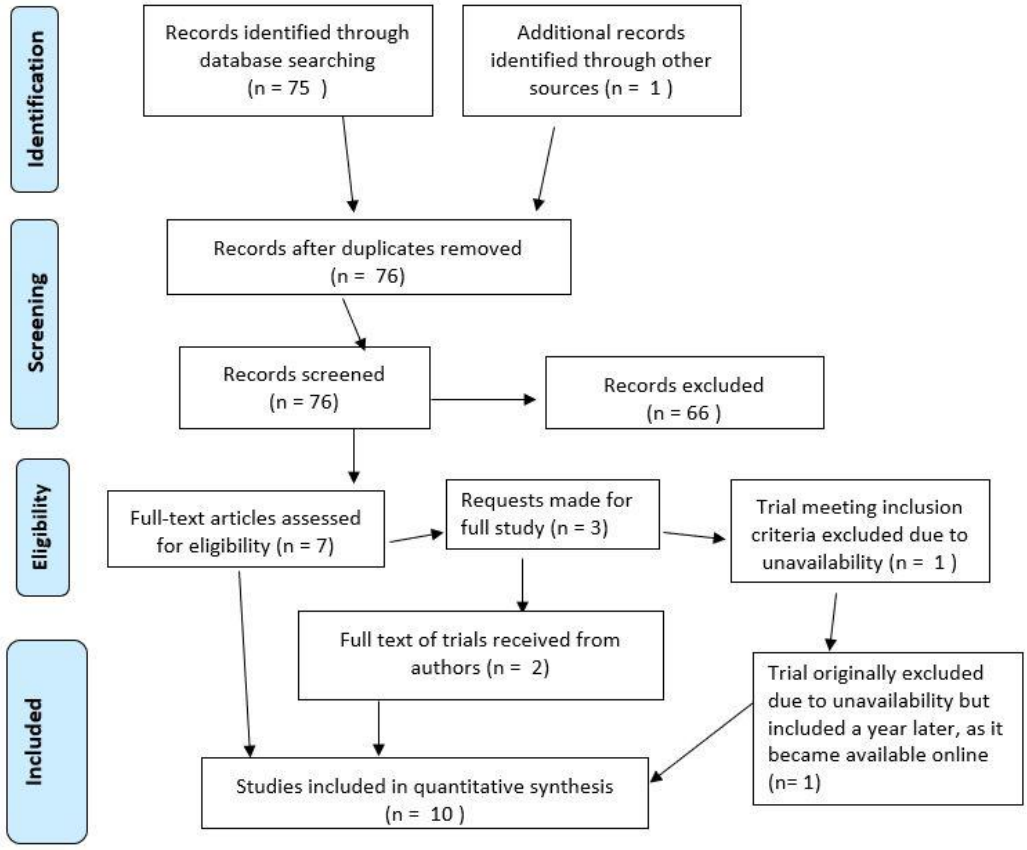


Figure 3.1 Prisma flow diagram; selection process for the systematic literature review Liberati, Altman, Tetzlaff, et al., (2009)

Quality of appraisal

Two frameworks were used to assess the quality of included studies: The **Critical Appraisal Skills Programme** (CASP) tool was used to standardize the process and improve the validity of the review results (Bettany-Saltikov, 2016). The CASP [29] checklist summarises the trial results and assesses their bias, determining adequacy of randomization, blinding of outcome assessment, incomplete outcome data, selective reporting and other sources of bias. I evaluated all questions of the CASP checklist as either affirmative, negative or unclear and the same was done by Dr Franziska Wadephul, (FW) to raise the validity of the findings of this review. The **Caldwell framework** (Caldwell, Henshaw and Taylor, 2011; Bettany-Saltikov, 2016) for assessing health interventions, was additionally used to rate the included studies. These authors call the methodological evaluation the 'risk of bias' with greater risk being found in poor studies or studies lower down on the hierarchy of evidence. RCTs will (potentially) have a low risk of bias and a case study will have a high risk of bias.

Data extraction

The CASP data extraction template[30] was used to extract data from the papers. Data extracted included

- authors
- where the study was performed, the countries
- year of publication
- participant's characteristics, demographics
- sample sizes
- control groups
- the type of intervention and study structure

Tables were created summarizing the following aspects of the included trials with data needed to answer the review question (Appendix 2, section 10.2):

- inclusion and exclusion criteria
- demographic details of the trial participants

Additional details of the trial cohorts were summarized. Further details extracted included,

[29] https://casp-uk.net/ Accessed 1.7.2018

[30] http://www.rccm.org.uk/sites/default/files/files/DECA%20forms.pdf retrieved online 29.5.2018

- whether the postnatal context is included in the discussion
- how pregnancy-related LPP as a field is discussed
- whether the trial differentiated between NSLBP and PGP

Synthesis The studies were summarized to be sure that the various interventions used had been thoroughly understood. Due to heterogeneity, a quantitative synthesis of the results was precluded. It was not possible to meta-analyse the intervention effects and for this reason, narrative synthesis was chosen as the best method to analyse and synthesise the findings. Narrative synthesis enables the *s*ynthesis of findings from different sources using words to summarize and explain the synthesised findings (Popay, Roberts and Sowden et al., 2006). The main reason for not being able to meta-analyse the studies was the differing instruments used to measure LPP (see Table 3.2) and above all, lack of distinction between LBP and PGP making comparison not feasible.

Conserve, Teti and Shin (2017) advocate its use when a meta-analysis is not feasible due to substantial methodological and clinical heterogeneity between the studies being reviewed. The aim of this approach was to maintain transparency in the interpretation of the data and how conclusions were reached as well as synthesizing the trial outcome

3.6.3 Results

Characteristics of the included studies

Of the ten studies which were included in the review, eight are in English and two, Belz, Brix and Menges, (2014) and Recknagel, Roß and Schwerla, (2008a) are in German; both reviewers (NH and FW) are fluent in German. Other foreign language papers were not identified and hence automatically excluded. 668 mothers were included in the reviewed RCTs, the highest sample size was 150 and the lowest 30. Women from the included trials were recruited via midwives, gynaecological or obstetric practices, in hospital or the place of care after birthing or came from private (osteopathic) practices, via social media, word of mouth and child daycare centres. All studies were statistically analysed with SPSS. No trials mentioned ethnicity. All studies included passages about informed consent except the study by Chaudry, Rishad and Shah, (2013).

Upon an initial analysis of these trials three things were apparent:

- the low number of trials
- the regions they come from

- the diversity of approaches to treatment

Within this treatment diversity, the two main types of approach to pregnancy-related LPP which were discussed in the background to this review were identified. These are either local treatment of the painful area (osteopathic manipulative treatment, OMT, was the most common) or some form of exercise. The trial from Japan, Sakamoto et al., (2018) takes up a special position in the review as it centred around a beltlike device aiming to realign the pelvis that mothers attached to themselves and used with exercises that they were shown how to do but performed alone. Seen as such, this trial straddles the 'local manipulation' and exercise domains of treatment. The following two tables summarise the included trials and the results of the review:

Table 3.2 Overview of the trials included in the systematic literature review

Journal	Country	*n* =	Year	Authors
Int. J of Nursing Practice	Taiwan	60	2015	Lee & Ko
J of Back & Muscular Rehab	Egypt	45	2016	Kamel, Neneen, Raoof et al.
J of Family & Reproductive Health	Iran	150	2017	Yazdanpanahi, Ghaemmaghami, Akbarzade et al.
Int, J of Osteopathic Medicine	Germany	40	2008	Recknagel, Roß, Recknagel et al.
Unpublished thesis	Germany	60	2014	Belz, Brix and Menges
Am. Osteopathic Association	Germany	80	2015	Schwerla Rother & Rother et al.,
J Rehabil. Medicine	Sweden	88	2010	Gutke, Sjödahl & Öberg
Rawal Med. J.	Pakistan	40	2013	Chaudry, Rashid & Shah
J of Back & Muscularskeletal Rehabil.	Egypt	30	2018	Mohamed, El-Shamy & Hamed
J Rehabil Med	Japan	75	2018	Sakamoto, Nakagawa & Gamada

Table 3.3 Summary of results of the trials in the literature review

Design	*n =*	*Participants*	*Results*	*LPP?*	*PP?*	*Rating*
Lee & Ko, (2015) Taiwan *Back massage intervention for relieving lower back pain in puerperal women*						
RCT. Pain measured with VAS. Control group: routine care only. Measurement: before and after intervention. Begin: ca. 12 days after birthing. The treatment group received a back massage/reflexology session lasting approx. 20 minutes for consecutive five days from one of three experts specialising in therapeutic massage daily.	60	62 women, SVD, with LBP > 1 on VAS during first days after birthing. 28 - 40 yrs. old, 58.3% primiparous. One dropout in each gp.	The trial reports finding that a back massage intervention can effectively relieve lower back pain.	No	Yes	15
Kamel, Neveen, Raoof, Tanty, (2016) Egypt *Efficacy of lumbar mobilization on postpartum low back pain in Egyptian females*						
RCT with three arms. Pain measured with VAS. Functional disabilities with ODI. Lumbar muscle activity with surface EMG. Measurement: pre- and four weeks post intervention. Begin: at least 3 mths. postpartum. Treatment group received lumbar mobilization sessions plus traditional treament (ultrasound & infra-red). Second group received 2 mins. touch without force on L3 spinal processes + ultrasound & infra red treatment. Control group C received only ultra-sonic and infra-red traditional treatment. Sessions: 3 times/week for 4 wks.	45	45 women with chronic BP at least 3 months after birth. BP onset during pregnancy and/or after birth. Primiparous. 91.1% had LBP during pregnancy, mostly during last trimester.	The trial reports that lumbar mobilization showed a significant effect on reducing postpartum LBP & functional disabilities.	No	Yes	23
Yazdanpanahi, Mehrnoush, Akbarzade, Zare & Azisi, (2016) Iran *Comparison of the Effects of Dry Cupping and Acupressure at Acupuncture Point (BL23) on the Women with Postpartum Low back Pain (PLBP) Based on the Short Form McGill Pain Questionnaires*						
RCT with three arms. Pain measured with short form McGill Pain Questionnaire. Control group = no treatment. Measurement. pre- & post intervention, at 24 hrs, 2 weeks. Intervention begin: unclear. Interventions: Dry Cupping and Acupressure: Group A: Dry cupping group: 15 – 20 minutes. 4 times on alternate days. Group. B: The acupressure group - 20 minutes but frequency unclear.	150	150 women with pregnancy-related LBP. How long the women had been experiencing it: unclear. Simple random sampling. Unclear which group of women the sample was selected from or how long postpartum participants were.	The trial reports decreased pain intensity in both study groups: the reduction in pain intensity was significant in the cupping therapy group. (Unclear if dry cupping was more effective that acupressure.)	No	No	24

Design	*n =*	*Participants*	*Results*	*LPP?*	*PP?*	*Rating*
Belz, Brix & Menges (2014) Germany *How large is the success of a holistic osteopathic treatment of women with persistent unspecific back pain, postpartum?*						
RCT with waiting list control group. Pain measured with VAS. The Pelvic Girdle Questionnaire (PGQ) measured impact on functioning on daily life. Likert scale questionnaire to identify pain frequency as distinct from intensity. Measurement: pre- and post intervention, fortnightly. Follow-up time: 12 weeks. Intervention: five OMT sessions (40 – 60 minutes) given by either one of two therapists, fortnightly. Intervention begin: 3 - 15 mths. postpartum.	60	60 women with persistent NSLBP > 3 mths, 3 - 15 mths postpartum starting in pregnancy or at birthing. Pain: >5/10 on VAS. 3 dropouts in each group.	Trial reports significant reduction in pain intensity in intervention group compared to control. Significant reduction in pain intensity in invention group over time. Reduced pain frequency over time in the intervention group. Significant improvement in daily functioning in the intervention group. Significant improvement over time in the intervention group.	Yes	Yes	31
Schwerla, Rother, Rother, Ruetz & Reschet al. (2015) Germany *Osteopathic Manipulative Therapy in women with postpartum low back pain and disability*						
RCT with waiting list control group. Pain measured with VAS, ODI. Measurement: baseline, 2, 4, 6, 8 wks. Follow-up time: 12 weeks after end of treatment. Four OMT sessions (40 – 60 minutes) given by one of two therapists. Intervention begin: 3 - 15 months postpartum.	80	80 women with persistent pregnancy-related LBP > 3 mths, 3 - 15 mths postpartum starting in pregnancy or at birthing. Pain: >5/10 on VAS. 2 drop-outs in intervention gp. 1 in control gp.	Trial reports significant improvement in pain intensity and functional disability in intervention group. Significant improvement in pain intensity and functional disability over time in the intervention groups.	Yes	Yes	31

Design	*n =*	*Participants*	*Results*	*LPP?*	*PP?*	*Rating*
Gutke, Sjödahl, & Oberg, (2010) Sweden *Specific muscle stabilizing as home exercises for persistent PGP after pregnancy*						
RCT: primary outcome: disability (not pain) measured with the ODI. Secondary outcome, pain -VAS measured: current and in previous week. Pain frequency (likert scale measurement). Health-related quality of life (EQ-5D & EQ-VAS; WB (VAS); symptom satisfaction and muscle function. Measurement: 3 and 6 mths (after intervention completion). Individual programme of home exercises with four specific muscle stabilising exercises from 15 standardised and predesigned exercises for each woman; level raised every two weeks and continued for unclear number of weeks. Intervention begin: at least 3 months. postpartum	88	88 women with LPP, most PGP, some NSLBP & PGP. Onset during pregnancy or 3 weeks. after birthing. Treatment gp. (34 women) did exercises > twice a day, each exercise > 10 times. Individual guidance every 2nd week by one of the two treating physiotherapists. High drop-out rate: at 3 months follow up: 26 in intervention gp., 39 in control group., at 6 months follow up: 24 in intervention gp., 36 in contol group. Participants kept a treatment diary. The control group (54 women) had one telephone contact with physiotherapist re. PGP & combined pain & general information about exercise in the postpartum.	Trial did not report significant differences in disability or pain intensity between groups. Significant reduction in pain-frequency at 3-month in intervention group vs. control. Some improvement over time in both groups re. disability, pain intensity, symptom satisfaction and muscle function. Most women still experienced PGP.	Yes	No	34
Chaudry, Rashid, Shah, (2013), Pakistan *Effectiveness of core stabilization exercises along with postural correction in postpartum back pain*						
Postural correction was in different positions in intervention group: supine, lying, half sitting and prone position. Women received two postural core stabilisation exercise sessions per day for three days while they were in hospital, 30 mins, unclear for how many days. Control group: simple back strengthening exercises. Pain measured with VAS. Restriction in activities in daily living, muscle power, mobility. Little detail on outcome measure, no measurment details. Intervention begin: unclear - in birthing hospital, within days after birthing.	40	40 women 52% mild BP, 40% moderate, 8% severe, no details on onset or type. 63% CS. 40% follow up sessions in hospital. 60% on the phone.	The trial included women who had a CS and SVD. Exercises after CS seems questionable. Trail reports core stabilization exercises and postural correction were an effective technique in postpartum back pain and that core stability exercises are better than other forms of exercise in preventing injury and reducing postpartum lower back pain.	No	No	9
Mohamed, El-Shamy, & Hamed, (2018), Egypt *Efficacy of kinesiotape on functional disability of women with postnatal back pain*						

Design	*n =*	*Participants*	*Results*	*LPP?*	*PP?*	*Rating*
RCT. Pain measured with VAS. Functional status related to BP + daily activites (Back Pain Function Scale). Intervention group had postural advice + set of exercises 3x/week for 2 weeks + kinesiotape application: Tape application: 3 each for 3 days, with one day rest in between. Control group exercise programme only. The exercise programme included 10 minutes warming up, five minutes slow walking, 20 minutes of exercise, five minutes cooling down. Measurement: baseline + 2 weeks after completion of intervervention. Intervention begin: 12 wks. after delivery.	30	30 women, mean age 24, with pregnancy-related LBP. Primiparous, SVD.	Trial reports that kineseotape and postural correction exercise can be used as effective and safe methods for the treatment of postnatal women with backache and a decrease in pain intensity + increase in functioning over time in both groups. Significant reduction in pain intensity + increase in functioning in intervention group compared to control.	No	No	26
Sakamoto, Nakagawa & Nakagawa and Gamada (2018) Japan	*Effect of exercise with a pelvic realignment device on low-back and pelvic girdle pain after childbirth*					
RCT, three arms, random allocation. Pain measured with VAS & PGQ. Group R - with device, GroupE - with stabilizing exercises based on European guidelines for PGP, Group C - no intervention: control. Intervention gp. did exercise and used RealineCORE, a belt-like device with rigid front frame with 2 belts and 2 pairs of ratchets to attain pelvic symmetry. Forces on both ASIS and compressive forces on the SIJ. Exercises: stepping, pelvis shifting, pelvis rotation with knee extension and then flexion, trunk flexion and extension done while wearing device. Measurement 11 times during 3 mth. trial period after birth on days, 1 - 5 & wks. 1,2,3,4,9 & 13. Exercises done 10 mins/session, twice a day, intervention over 4 weeks. - 9 wk. follow-up. Physical therapist instructed participants for the first 4 days after birthing, until leaving hospital on day 5 after birthing.	75	78 healthy women, unmedicated SVD, aged 20 - 40, able to care for baby alone on day after birthing, with no significant differences were randomised. *"The subjects did not have PGP"* (p. 915) a confusing sentence! 2 discontinued in Group R, 1 discontinued in Group E. Compliance raised via telephone contact, SMS, email after leaving hospital. Pre-paid forms provided for feedback. No adverse events during intervention & follow-up. 90% response rate. Groups R & E continued alone for 4 weeks with the exercises.	Trial reports significant reduction in PQQ scores over time in intervention gps; no significant difference between the 3 gps. Reports that pain significantly reduced in intensity over time in Gp. R but no significant differences between gps.	No	No	24

LPP? = pain differentiated into PGP and NSLBP. PP? = postpartum life situation considered. Rating = CASP points assigned

The inclusion criteria of the reviewed trials show diversity and heterogeneity. The prevalence of LPP during pregnancy was a parameter that ranged greatly among the reviewed trials from started during pregnancy (Gutke et al., 2010) to prevalant up to 24 months after birthing (Recknagel et al., 2008), to being unspecified. Whereas Mohamed et al., (2018) *excluded* women who had pregnancy-related LPP, Kamel et al, (2016) reported that *all* women included in the trial had had it, as did Gutke et al. (2010), with 94% of participants having pregnancy-related LPP. Yazdanpanahi et al. (2016) and Chaudry et al. (2013) gave no data on this variable. Sakamoto et al. (2018:915) confusingly state that *'subjects did not have PGP '*. The strength of pain to be included in a trial, measured by the VAS, on a scale from 0 (no pain)-10 (maximum pain) also varied. In one trial >1 (Lee and Ko, 2015) was the inclusion criteria, in three trials >5, indicating varying pain severity under examination. Vaginal birth as a specific inclusion criteria was given for four trials, the other trials included women who had either a vaginal birth or a CS, and in two trials it was not clear how women had given birth. Only Gutke et al,'s (2010) trail included pain provocation tests enabling differentiation of PGP from NSLBP. Exclusion criteria were more homogenous. The main exclusion criteria was a history of fracture, (a pre-condition of six of the trials) and other pathologies of the musculo-skeletal system. Only three trials stipulated pregnancy as an exclusion criterion.

Terminology

The background to this systematic identified that inconsistent terms are used in the field of postpartum BP. This trend was also found in the review. *Postnatal low(er) BP* was used as a term by Yazdanpanahi et al., (2017), Belz et al (2014), Kamal et al., (2016). Chaudry et al. (2013) used the term *postnatal BP* as did Mohamed et al., (2018). Schwerla et al., (2015) use the term *persistent postnatal lower BP* and Sakamoto et al., (2018) speak of *low back and PGP* while Recknagel et al., (2008) use the term *non-specific postnatal lower BP.* As Gutke et al., (2010) was the only trial that differentiated the source of pain by pain provocation tests they used the term *persistent postnatal PGP*. Lee & Ko (2015) write of lower back pain (LBP) in postnatal women. The researcher's CASP checklist was compared to FW 's evaluation and there was a general overall agreement of the results. As there was overall agreement, there was no need for a strategy to resolve a disagreement. The first six questions of the CASP tool deal specifically with bias and validity. Only the first two questions could be consistently affirmed for all trials by the reviewers, that is, whether the trials deal with a focused issue and did randomisation take place. Gutke et al., (2010), Schwerla et al., (2015) Belz et al., (2014) Recknagel et al., (2008) and Mohamed et al., (2018) gave details of randomisation

leaving doubt as to the quality of randomisation in the other trials. It could not always be determined if the intervention and control group were identical at baseline. Four trials were small with 45 and under participants: *P*-values and confidence intervals and effect size were not provided in all trials. The Caldwell framework appraisal and associated questions are in Appendix 2, section 10.2 (Table 10.5). The following table summarises the results of using this appraisal tool which allocated 0, 1 or a maximum of 2 points.

Table 3.4 Summary of points for the Caldwell framework

Caldwell framework quality assessment	**Total points**	Excellent	High	Medium	Low	V.low
Recknagel et al., 2008	31		✔			
Gutke et al., 2010	33	✔				
Chaudry et al., 2013	10					✔
Belz et al., 2014	31		✔			
Lee & Ko., 2015	16				✔	
Schwerla et al., 2015	31		✔			
Kamel et al., 2016	23			✔		
Yazdanpanahi et al., 2016	24			✔		
Sakamoto et al., 2018	25			✔		
Mohamed et al., 2018	26			✔		

One main finding from using this framework was that the non-European studies referenced less and used older literature than European studies. The length of the reviewed papers differed greatly between Belz et al.'s (2014) thesis (175 pages) to Chaudry et al.'s (2013) paper (2,5 pages). The question as to whether the findings were generalizable was rated with 0 for all trials due to the low number of participants. Additionally, participants in several trials were not representative of the general population (sampling from one clinic only, or only married women). Furthermore, the sample, the included women themselves, were heterogeneuous, involving, for example, CS and vaginal births and primi- and multiprimous women who were in different life situations (at home or their birthing clinics).

Measurement of LPP

The primary outcome in all trials except one was the level of pain described as intensity of LPP. Gutke et al. (2010) had disability/functioning as the primary outcome. A variety of methods and scales were used to record and document pain levels and changes initiated by the range of interventions used in the reviewed trials. Most commonly, the visual analogue scale, VAS, was used. Secondary outcomes from several studies were pain-related disability quality of life, muscle strength and quality, documented in the same table. The Oswestry

Disability Inventory (ODI), a tool employed to measure functional disability was the second most frequently used tool.

Types of interventions

Various modes of action of the various methods employed were presented in several papers. As these were not seen to broadly contribute something new to the field, no analysis or attempt to synthesise this information was undertaken. The interventions reviewed here can be divided into two main groups: local treatment ('manipulative' in the widest sense of the word) and exercise(s) under the guidance of a physiotherapist.

Manipulative interventions When the intervention started and how long it took ranged from a massage intervention starting on day 9-13 after birthing for five days for 20 minutes, (Lee and Ko, 2015) to OMT every two weeks for (40-60 minutes) and up to 24 months after birthing (Recknagel et al., 2008). Women received four treatments in two OMT studies and five treatments in the other OMT study. Three trials had three arms: Yazdanpanahi et al. investigated the effects of dry cupping and acupressure. Dry cupping is a form of alternative medicine in which local suction is created on the skin (Lauche et al., 2011). It involves stimulation of the skin by suction and is applied to increase the local circulation of blood and lymph and to relieve painful muscle tension (Akbarzade et al., 2016). Acupressure is also a form of alternative medicine similar in technique to acupuncture, but using pressure by hand, elbow or other devices, not needles (Adams, Eschman, and Ge, 2017).

Kamel et al. (2016) performed a trial on lumbar mobilization. Both these trials hence belong in the sub-group 'local manipulation'. Sakamoto et al., (2018) had a trial group **R** which used a device to **r**ealign and stabilize the pelvis during a programme of standing exercises, a trial group **E** that did only **e**xercises and a **c**ontrol group, **C**, with normal care only. The device used in this RCT was called *ReaLineCORE®*.

Control The control groups usually received only routine care but the three osteopathic trials used the 'waiting list' design control group. These three trials undertaken in Germany were alike in their structure and execution. The trial by Belz et al., (2014) was designed to verify the findings of the Recknagel et al. (2008) trial. The younger OMT trials reference the older ones. Belz et al. (2014) used the Pelvic Girdle Questionnaire (PGQ) deemed by the authors to be more appropriate to the postnatal setting, not the ODI. The PGQ is specifically designed

for the postpartum phase, the ODI is not. Belz et al., (2014) also included their own Likert scale questionnaire to identify pain frequency as distinct from intensity which the VAS measures. These authors, as did Schwerla et al., (2015) had a follow-up time of 12 weeks, double the length of Recknagel et al.'s six weeks. The control groups waited until the end of the respective trials and then received two treatments within two weeks. The results of the waiting list control group are surprising: a rapid decrease in VAS scores to levels similar to the treatment groups after four, respectively five treatments, was recorded by all authors. This observation may possibly (indirectly) be indicating the natural healing process being accelerated by treatment expectation. Looking across these three trials, the main finding is the significance of a holistic approach of 'treating people and not spines' (Recknagel et al., 2008). Additional valid and relevant points were made in this vein in all the OMT trials which are summarised in the discussion of this review.

Table 3.5 Summary of the manipulative interventions included in the literature review

Study	*n* =	Intervention description	Measurement
Lee & Ko, 2015. Back massage, 5 times for 5 days	30	Treatment gp: daily back massage/reflexology sessions - (approx. 20 mins.)	Before and after intervention
	control: 30	routine care only	
Recknagel et al. 2008. OMT, 4 times, fortnightly	20	OMT sessions (40 – 60 mins.) by 2 osteopaths	Pre- and post intervention, fortnightly
	control: 20	Control group - waiting list design	
Belz et al. 2014. OMT, 5 times, fortnightly	30	OMT sessions (40 – 60 mins.) by 3 osteopaths	Pre- and post intervention, fortnightly
	control: 30	Control group - waiting list design	
Schwerla et al. 2015. OMT, 4 times, fortnightly	40	OMT sessions (40 – 60 mins.) by 2 osteopaths	Pre- and post intervention, fortnightly
	control: 40	Control group - waiting list design	

Table 3.6 Summary of three-armed trials included in the literature review

Study	*n* =	Intervention description	Measurement
Kamel et al. 2016. Intervention, lumber mobilization: **3 times / week for 4 wks.**	15	Gp. A: posterior/anterior lumbar mobilization	Pre- and four weeks post intervention (VAS)
	15	Gp. B: (placebo gp.) two minutes touch without force on the L3 spinal process*	
	15	Control gp: only ultra-sonic and infra-red 'traditional treatment'	
Yazdanpanahi et al. 2016. Intervention, Dry Cupping and Acupressure: **4 times on alternate days**	50	Gp. A: Dry cupping group - 15-20 minutes	Pre- & post intervention, at 24 hrs, 2 weeks (McGill Pain Questionnaire)
	50	Gp. B: The acupressure group-20 minutes	
	50	The control group - no treatment	
Sakamoto et al. 2018	25	Gp. R: stabilistion exercises + device, 10 mins, 2 times/week, 4 wks. Guidebook + video	Pre-post exercise, days 1-5 after birth wks. 1-4 with 9 wk. follow up (PGQ)
ReaLine®CORE device + exercises	25	Gp. E: stabilisation exercises as above, both gps. exercise journal	
	25	Control gp: no exercise programme	

** means plus ultra-sonic and infra-red 'traditional treatment.'*

Exercise interventions Gutke et al.'s (2010) trial differed from other reviewed trials as the primary outcome was disability (and not pain) measured with the ODI; the secondary outcomes were pain, health-related quality of life, symptom satisfaction and muscle function. The treatment group performed exercises and each woman received an individual programme with four specific exercises from 15 standardised and pre-designed exercises;

the level was raised every two weeks. Individual guidance was given and the participants kept a treatment diary. The control group had one telephone contact with general information about exercise in the postpartum. Measurement was at three and six months after intervention completion. This trial had a high dropout rate which may be due to the difficulty of keeping up with the performance of the exercises in the postpartum period. The findings of this trial contrasted sharply with the trial on the same topic by Chaudry et al (2013). These researchers studied the effectiveness of core stabilization exercises with postural correction. The study reported that women who had had a CS also performed the exercises, which seems questionable due to mobility restrictions and pain after such an operation. Postural correction in this RCT was in different positions i.e. supine, lying, half sitting and prone position. The authors conclued that core stabilization exercises and postural correction were an effective technique for postpartum BP. Further, they concluded that core stability exercises are superior to other forms of exercise in preventing injury and reducing postpartum lower BP. Sakamoto et al., (2018) found that exercises in standing with the pelvic realignment device had short-term positive effects and improved pain in the four weeks after birthing. The differences to the group doing exercises without the device were however, not significant.

The postpartum context *'Zuo yeuzi'* is the Chinese term for the one-month postpartum bed rest period to 'rebuild health and strength' also called 'doing the month' is explained in the trial by Lee and Ko (2015). This traditional ritual deeply influences postpartum nursing care in the country, although Taiwan is a westernised country. The practice includes a month of bed rest. Bathing, hair washing or going outdoors is not permitted[31]. Other studies that briefly contextualise the postpartum included those of Belz et al, Schwerla et al, Kamel et al, and Mohamed et al.. However, the physical demands of the postpartum were nowhere discussed in detail (which is possibly unsurprising for quantitative studies) and the potential

[31] While not being allowed to bathe, wash hair or be outdoors appears to someone from the Western world limiting and extreme, there is still a message of contrast with the UK which has almost totally lost the culture of 'lying-in'. In Germany, the mother after birthing has a status: she is a *Wöchnerin* and she is in *'Wochenbett'*, the six week puerperium phase encouraging her to take it easy and look after herself. *Woche* means week. Terms which do not exist in the English language arise from this status as *Wöchnerin*: *Wochenfluss* (lochia), *Wochenstation* (maternity ward after birthing), *Wochenbett-betreuung* (maternal care during the puerperium). This seems to indicate cultural differences for women in the postpartum even within Europe. On the other hand, the German language has no equivalent to the word postpartum. *Die Zeit nach der Geburt* is the term used which simply means *the time after the birth* alluding to the puerperium. It therefore seems the *phase* of life is established in English but not in German.

implications and relevance of the working conditions with respect to NSLBP or PGP were not considered.

3.6.4 Discussion

This review looked at the limited evidence for successful treatment of postnatal LPP performed in ten RCTs done in eight different countries, from four continents between 2008-mid 2018. The review highlights that little high-quality research has been done in this field and reveals a gap in the literature. Only four of the ten included trials distinguished the different types of aetiologies and pain, (NSLBP and PGP) indicating that their respective treatment and associated symptoms or disabilities have possibly not yet become standard. Only Gutke et al. (2010) used pain provocation tests to differentiate the pain source in participants. Additionally, this review highlights that the concept of *postpartum* is unclear making the concept of *postpartum back pain* difficult to define: how long is a mother postpartum? Bergström, Persson, and Mogren, (2019) consider in their paper psycho-social and behavioural characteristics in women with pregnancy-related LPP *twelve years* postpartum. Romano, Cacciatore, Giordano, et al, (2010) see the postpartum ending around six months after birthing but use only physical restoration to the pre-pregnant state as the defining guideline.

The narrative approach enabled comparison of the included diverse studies where a meta-analysis was not possible. On the limiting side, only English language databanks were searched and could have caused bias in paper selection and will have excluded any primary papers in other languages, despite including two studies in German. On the positive side, both the present author and the research assistant performed a systematic literature research and examined the results at different time points for the stipulated time-period. This raises the validity of the results.

Areas with a new research potential in the field were revealed. Dry-cupping and acupressure as methods deserve closer investigation. Approaches that place conscious self-management to the fore using awareness (postural and otherwise) that enable self-care of LPP in the demanding postpartum phase of life were not represented in this review and also warrant research. This would be a preventive rather than a treatment approach.

Research done under the RCT label on postnatal LPP and included in this review did not always conform to the high standards that randomised controlled trials require (Schulz, Altman, Moher, 2010), seemingly yielding biased results due to methods that were not

robust. Sakamoto et al. (2018) declare 'no conflicts of interest' but the device named and used in this study (ReaLineCore®) and is produced by a company which markets and sells its device. Hence the *no conflicts* statement appears somewhat cynical. The only very high-quality trial (Gutke et al., 2010) produced a negative result, providing evidence that muscle-stabilizing exercises performed at home do not relieve postnatal PGP any faster than the normal course of healing. The normal course of healing is cited in this study to be three months (Ostgaard and Anderson, 1992). Paradoxically, this study *does* contribute to the field because it is consistent with other evidence about the limited role exercise can contribute to alleviating pain if not employing multimodal approaches (Peterson, Haas, and Gregory, 2012; Takai, Yamamoto-Mitani, Abe et al., 2015).

The Caldwell appraisal framework questions revealed that some of the included studies listed literature that was neither up-to-date nor comprehensive. This may indicate language and access barriers compromising research and was especially evident in the non-European studies.

In none of the studies were individual skills to become competent in self-managing LPP discussed: the responsibility for healing/improvement lay with the care provider or physiotherapist (or a device). Takai, Yamamoto-Mitani, Abe, et al., (2015:166) in their systematic literature review of 35 studies on the management of chronic pain note that,

> *'Individuals […] reported that strategies including pharmacotherapy, physical activity, social support from friends and family, acupuncture, heating, rest, diets, or life-style changes helped them to effectively manage their pain.'*

These aspects seem only minimally to have permeated the field of pregnancy-related postpartum LPP. Equally, approaches whereby patients learn to pace activity appear neglected (Birkholtz, Aylwin, and Harman, 2004). Maternal physical well-being, which contributes to general well-being during the postpartum, warrants more high-quality research. Multimodal approaches combining successful facets of both main approaches, integrating postural awareness, including proactive self-management and self-care techniques seem promising future areas of research. *How* women perform the potentially numerous demanding activities of the postpartum, *what leads to diminished functioning,* and what role this plays (if any) in the onset of pregnancy-related LPP (and why it does not heal after pregnancy) also seems a promising field of research. In this sense, the literature review

revealed several gaps. Any primary papers in other languages (apart from the two included German studies) were not included: this is a shortcoming of this review.

Risk of bias in the studies included in this review

Blinding of study participants and caregivers is not possible in studies employing manual interventions or exercise which was the case in all trials reviewed here: this increases the risk of bias. Two trials acknowledge this as well as their small sample size Lee and Ko (2015) and Mohamed et al., (2018). The risk of the influence of the therapist/caregiver on the perceived effectiveness of treatment was potentially especially high in the studies using manual treatments. A 'practitioner effect' has been shown to exist whereby a therapist may influence the perceived effectiveness of the treatment (Lewis, Morley, Windt et al., 2010). Lee and Ko (2015) acknowledged that they used non-representative samples. Yazdanpanahi et al. (2016) excluded unmarried mothers from the study. The trial was potentially therefore not representative but it is not known how many women give birth out of marriage in Iran; the number may well be very low. Other studies omit to acknowledge bias risks although from the demographic additional data its potential is clear. The papers of Chaudry et al. (2013) and Lee and Ko (2015) were very short and this implies reporting bias as details regarding the trials appeared to be lacking. The study not indicating it had ethical approval by a local ethical committee (Chaudry et al.) compromised the reliability and validity of their trial as approval ensures that the study complies with professional, ethical and scientific standards (Tingle and Campbell, 2013).

The reported standard deviations are based solely on the sum of subjective answers of the VAS which six of the ten studies used. Hence, systematic errors or uncertainties of their measured parameters were not taken into account. Although all trials report randomly selecting their participants there were many flaws in trial constructions: from highly underpowered trials, (four had 45 and under participants), lack of randomization details, not accounting for all participants at a trial's conclusion and group similarity at trial start. These aspects cast doubt on the results and not all published positive study conclusions were grounded in the data available and presented in the papers. Spieth et al., (2016) note that the differences observed between groups are related to the intervention tested in the trial and their internal validity. As the methods used in a trial are important in considering the validity of findings, several of the included trials appear in a light where their validity is questionable due to the above discussed bias-potential as well as random error which was

not discussed. Some trials took place in the hospital where a woman had given birth and some interventions were performed in a community context or women's own homes. This also confounds comparing the trials and coming to conclusions because the living conditions of the women in the trials differed greatly; from a postpartum care centre to mothers navigating everyday life with a baby. Multiparous women have a higher work-load at home which is known to increase the potential for BP, especially carrying and lifting (Coenen et al., 2014). The latter being a natural part of a mother's everyday life, especially if she has more than one small child to care for. The OMT trials (including 180 women) documented an average of 1.6-1.7 children.

Theoretically, the three OMT trials made the following points in their discussions contributing to the field of postpartum LPP: the influence of personal events during the postpartum (for example, illness of the baby), and sleep quality and fatigue on LPP (Belz et al.,2014). Pain intensity and functional disability are not automatically correlated: high VAS scores are not related to high disability scores Recknagel et al. (2008). The processes of being pregnant (Belz et al.,2014) and giving birth and their possible roles in postnatal LPP (Schwerla et al., 2015) are considered. However, the three OMT studies, while having a more robust design than the non-European studies, were underpowered meaning results that were presented as 'statistically significant' do not automatically indicate the usefulness or magnitude of the treatment effect. These were small trials but not 'poor trials' (Lilford and Stevens, 2002). The results seem, however, to suggest a trend that OMT helps alleviate postnatal LPP. Significantly, all authors of the OMT trials comment on the paucity of research within the field.

Unwitting evidence

This review unwittingly produced evidence for different fundamentals regarding scientific standards and cultural norms between the countries where the studies were undertaken. Different conceptual frameworks are apparent, as well as the variety of approaches towards alleviating postnatal BP within the two main sub-categories of the field. Chaudry et al., (2013) describe their concept of a relationship between 'proper posture' and BP with 'good sitting posture' which comprises *'back flat, head up, shoulders back and stomach in'* (p. 256) which may appear simplistic, mechanistic and old-fashioned to some European readers. Their trial looks at the effectiveness of core stabilisation exercises concluding they had demonstrated that *'statistically significant improvement in muscle power in* [the] *experimental group as*

compared to controls' (p.257) and that *'core stabilisation exercises and postural correction are effective techniques in the management of postpartum back pain* (p.256).*'* This conclusion is in agreement with the findings of a meta-analysis by Wang et al. (2012) who found that short term benefits to physical function exist in patients with long term LBP doing core stabilisation exercises. However, the same authors found *no* significant long-term differences in pain severity between patients who did core stability exercise compared to those who did general exercise. Smith, Littlewood, and May (2014) confirm these findings in a meta-analysis and note that strong evidence exists that [core] stabilisation exercises are not in the long term more effective than any other form of active exercise. Their analysis included 2258 participants from trials. The RCT by Chaudry et al., (2013) contrasted greatly with the high-quality trial on the same topic from by Gutke et al. (2010) which produced *no* positive results but concluded that stabilising exercises on pregnancy-related PGP (with a follow-up data collection at six months) did not help more than the natural healing process. Furthermore, the trial by Chaudry et al. by omitting ethical approval raises the concern that the researchers might not have considered participant's informed consent and a right to withdraw.

Waiting list control groups The ethics of the waiting list control groups used in the three included OMT trials must be raised; experiencing BP, but agreeing to have no treatment. Perhaps, however, it is also feasible to suggest that a waiting list control group is 'more' ethical than a two-group RCT where the control group only receives normal care. The waiting list is not a true control group as the members have an expectation of 'what is coming and why' and are, therefore, not 'otherwise treated as the treatment group'. This does not conform to RCT standards (Schulz et al., 2010). Notably, the waiting list groups improved their VAS scores within two sessions as much as the treatment groups which had had four, respectively five treatments, which raises questions about the placebo effect (Wager and Atlas, 2015).

Hidden messages Lee and Ko (2015) state that 63,3% of the women in the trial gave birth to a boy. This trial took place in Taiwan and these figures may imply that abortion of female foetuses could have been practised. The human sex ratio is generally taken to be 1:1 with a worldwide minor bias towards male babies (Austad, 2015). The statement that the participants were primigravida, therefore, has a question mark. A 63% rate of CS was recorded in the study from Pakistan, is way above the WHO recommended level of 10-15% (WHO, 2018). The sample in Chaudry et al.'s (2013) study may not have been representative with more women having BP and having had a CS being included in the trial. The high CS

figures, however, might also suggest that a woman's right to exercise control over conditions of her labour and birthing were being undermined in the clinic where the trial took place, the Public Hospital of Rawalpindi.

Lee and Ko (2015:32) appear to belittle LPP when they open their paper discussing postnatal BP with the sentence *'Minor puerperant discomforts create difficulties for women and for health care providers…'* Yazdanpahni et al., (2016:83) also state that '*most women consider low back pain as an inevitable part of pregnancy and consequently do not seek treatment'*. Indeed, the tolerance that pregnant and postpartum women often appear to have regarding BP (among other issues) and accepting it as a 'normal' part of pregnancy appears to reflect a widespread attitude (Verstraete et al., 2013). Pierce, Homer, Dahlen et al., (2012) recommend, however, that LBP and/or PGP should not be universally accepted as normal during pregnancy. These authors, in a study in Australia, found that 71% in their sample had reported it to their maternity carer, but only 25% had received any form of treatment. Mothers experiencing LBP or PGP at three months after birthing were found to be at higher risk for persistent or chronic pain (Ostgaard and Andersson, 1992). Recknagel et al, (2008) also address the tendency of some postnatal women to tolerate the pain which brings resignation and the danger of chronicity. Another review, therefore, seems needed which might include a wider scope in terms of treatment.

General comments on the significance of pregnancy-related LPP

Despite LPP often being seen as a minor discomfort (Lee and Ko, 2015) during pregnancy, and women being prepared to accept it as transient (Pierce et al., 2012) some women may experience considerable discomfort and pain, and sometimes disability is involved with social and economic consequences (Verstraete et al., 2013). Gutke, Östgaard, and Öberg (2008) report that women with LPP recovered to a lower degree postpartum than those with 'only' PGP or 'only' NSLBP meaning that the classification of combined pain was a predictor for persistent pain postpartum. Bergström, Persson, and Mogren, (2014) clearly state that PGP in pregnancy is distinct from pregnancy-related low back pain (PLBP). Gutke, Ostgaard, and Oberg's (2006) conclude that pain intensity, disability, and health measurements differentiate sub-groups of LPP in pregnancy. Women who had BP in pregnancy may be at increased risk of complications during labour (Brown and Johnston, 2013). This might potentially explain the high CS rate in Chaudry et al.,'s trial as noted on the previous page. Such complications may also play a role in pregnancy-related BP not healing postpartum

meaning that potentially they increase the risk of a carry-over into the postpartum. Occurrence in pregnancy is therefore an important variable in the field of postpartum LPP.

The findings of this review correspond with the general literature on pregnancy-related BP discussed in the background: the causes of postpartum LPP are not fully understood and robust research is as scant as successful treatment studies are. If no awareness of the distinction between LBP and PGP exists it may be confounding elucidating pregnancy-related LPP and muddying any research done in the field. The ten included trials in this review approach the subject of postnatal BP differently and the results of the trials are therefore judged for different reasons, as discussed, to be robust or not. The common denominator is that neither exercise nor manual therapy interventions can be blinded. This reduces the strength of evidence given by the authors.

The research question posed, '*Can randomised controlled trials performed with women who have postnatal lumbo-pelvic pain published 2008-2018 provide evidence of effective new treatment methods?*' could not be positively answered and is the main conclusion of this literature review. The trial from Japan appears to epitomize the dilemma of the field. Sakamoto et al.'s, (2018) trial centres around a gadget which is attached to a woman's pelvis to realign it and is used in conjunction with exercise. The woman is neither treated with a manual intervention from a caregiver and only received attention from a physiotherapist showing her exercises during the first four days after birthing and of the trial. The participants appear alone in a technological world with their pain being 'attended to' by a clunky gadget attached to their pelvises.

Finally, cultural differences, the role and standing of women in society coloured this review. The following sentence from Yazdanpanahi et al.,'s paper seems to sum this up:

> *'This [low back] pain increases as pregnancy progresses and disturbs daily activities, such as carrying things, cleaning the furniture, sitting and walking, and eventually results in the woman's absence from work.'* p.83

3.7 Treatment of pregnancy-related LPP

It hardly is surprising that a great range of treatments and interventions are applied in a field that already suffers from diagnostic disparity, and where the true prevalence in the population remains unclear. Two main types of approach are observable, a primary one being passive approaches to 'cure' the condition with manipulation (Lewis and O'Sullivan, 2018). In

these approaches, it is the painful area and not the whole person which is treated. These include physio- and manual therapy (joint mobilisation), electro-therapy, chiropractic, massage, use or heat/cold, laser, traction, ultrasound, shortwave. The other main approach to alleviating LPP is the opposite of passive and involves the whole person, the patient, becoming active: muscle stabilising exercises, core-stabilisation exercises, re-aligning exercises, aerobics, tailor-made exercises, fitness classes, water gymnastics, pelvic tilt exercises, and brisk walking. Studies do not consistently bring forth convincing or consistent results, possibly due to the great diversity of methods.

It is surprising how research continues to focus on exercises to alleviate LPP, which appear to not be demonstrating a clearly positive effect. The concept of 'strengthening muscles' as a treatment for BP has persevered in practice and in the literature. NICE, UK, (2009) NSLBP recommendations include staying active, taking exercise with treatment combining manual therapy, (including manipulation) and exercises *'to strengthen your muscles and improve your posture, as well as aerobic and stretching exercises'* (webpage). The 2016 NICE guidelines for LBP (with or without sciatica) recommend group exercise programmes mentioning biomechanical, aerobic, mind-body movement programmes (or a combination of such). A further recommendation is to take preferences, specific needs as well as capabilities into account when recommending a type of exercise[32].

There seems to be a long history of belief in doing something locally to get rid of the pain although the scientific basis continually reports that the efficacy of this approach is inconclusive. Members of Pelvic Partnership[33] share a practical and differentiated view:

> *'you have a lot of pain, the muscles around that pain do not function normally (called inhibition) and so no matter how much exercise you do, it is unlikely to be effective. The pain is not caused by muscle weakness, but by joints not functioning properly. Even strong muscles will not realign a joint that is sitting in the wrong place'.*

Corsets or supportive pelvic belts or girdles as well as kinesotape, postural correction and progressive muscle relaxation, are also approaches which have been tried and tested. Gutke et al., (2015) found in a review of RCTs on treatment that pelvic belt use was supported by a strong level of evidence but that only a ridged belt helped women with syphysis pain (Gutke, Betten, Degerskär et al., 2015). Combined individual treatment including patient education

[32] https://www.nice.org.uk/guidance/ng59/chapter/Recommendations accessed on 15.3.2021
[33] http://pelvicpartnership.org.uk/ accessed 20.9.2018

coupled with home exercises have also been examined in trials, the latter combines external (manipulation) and internal (the patient does something herself) approaches. Medication is seldom an option during pregnancy. Analgesics like paracetamol are recommended in line with acute NSLBP recommendations by the European guidelines for the diagnosis and treatment of PGP. Use of transcutaneous electrical nerve stimulation (TENS) in alleviating BP shows conflicting evidence (Vance, Dailey, Rakel et al., 2014). An additional psychological treatment programme is also suggested by NICE if the above treatments and approaches have not provided relief. Provision of crutches or wheelchairs is mentioned as an adjunct for treatment in cases where pain causes disability.

The variety of interventions, individualisation, amount of guidance and the duration of interventions and/or exercises make it difficult to discover the most effective types of treatment. Furthermore, high-quality trials providing sound evidence, especially for the postpartum, are sparse. The European guidelines recommend a treatment planned for the individual within a multifactorial treatment plan including specific suitable stabilizing exercises for PGP postpartum Vleeming et al., (2008). One of the few trials with results suggesting alleviation of PGP utilised a multidimensional treatment concept including training of global and local muscles, ergonomic advice, raising body awareness, and, when indicated, massage, mobilisation and exercises (Stuge, Laerum, Kirkesola, & Vøllestad, 2004).

New approaches for dealing with LPP and CAM

Integrative treatment approaches include acupuncture, yoga, osteopathy, and cranio-sacral therapy. There is limited evidence supporting the general use of CAM for managing pregnancy-related low back and/or pelvic pain. Close et al., 2014; Elden, Fagevik-Olsen and Ostgaard et al., 2008) find only a few high-quality studies with very low evidence strength, making it impossible for researches/authors to make evidence-based practice. Lewis and O'Sullivan (2018) state that the time is now to reframe the care of people with non-traumatic musculo-skeletal pain. They argue that learning from the management of other chronic health conditions includes education, advice, shared decision making and a management plan underpinned with empathy and support. Aspects of the role of nutrition and diet, stress management and participation in graduated physical activity as well as sleep hygiene are additionally important. (Transfer to the postpartum regarding 'sleep hygiene' is potentially problematic because of nightly infant care.) Hartvigsen, Hancock, Kongsted et al., (2018) also make a strong case for moving away from the common bio-medical view of NSLBP. This is

prompted by the worldwide high prevalence of BP; point prevalence for 2015 was 7.3%, an estimated 540 million people - without an identifiable pathological cause. The same article cites a systematic review which identified self-efficacy, psychological distress and fear as intermediate factors to explain some of the pathways of neck and/or BP and developing disability (Haldeman, Nordin, Chou et al., 2018). Likewise, the potential importance of self-efficacy is backed in the same article by a systematic review including 83 studies with 15,616 participants of chronic pain conditions (23 LBP studies) that found low self-efficacy to be consistently associated with impairment and disability, affective distress, and pain severity (Maher, Underwood, and Buchbinder, 2017). For these reasons, some chronic pain treatment approaches have moved away from aiming to directly alleviate pain at the painful body part to input which alters beliefs and behaviours (Hartvigsen, Natvig, and Ferreira, 2013). An evolving paradigm shift in dealing with NSLBP brings self-management methods, for example, the Alexander Technique into the field.

Treating LPP locally or with exercise

Local pain treatment fails to acknowledge that a painful part of the body is not an isolated symptom but an expression of disorder and disturbance in the functioning of the whole musculo-skeletal system which in turn is within a living person, within a life context (Dimon, 2015:51-100). Additionally, exercise is commonly recommended for LPP with two implicit but contrary underlying assumptions that either tense muscles need relaxing through exercise *or* muscles are lax and need tightening up and 'strengthening' via training and exercise.

These assumptions have a long history in Western society and health care going back to Claudius Galen (129-210 AD) a Greek physician active in Rome (Dreisinger, 2014). For example, Ferreira et al., (2012) note in their systematic review of the effectiveness of physical therapy for pregnancy-related LBP and/or PGP after delivery that stabilizing exercises seem a *logical approach* to treating PGP based on spine muscle stabilization. This is legitimised by an explanation in terms of the role of the local musculature. However, as early as 1910 Alexander wrote that the muscular system does not work in isolation and this very system can function poorly and habitually (Alexander, 1910). He argues that relaxation or exercise may *temporarily* change conditions and may bring relief from tension and pain but once activity is resumed, detrimental habits will return and with them tension and, potentially, pain. This might explain why 25% women in an experimental group stopped participating in a trial due to *increase* in pain during a study to investigate the value of graded exercises of

the diagonal trunk muscle systems. These women had persistent PGP after pregnancy (Mens, Snijders, and Stam, 2000). The understanding that pain is a localized phenomenon to do only with the structure(s) which are painful, remains deeply embedded in current medical beliefs: Tseng et al., (2015:9) note in the discussion:

> *'Among the trials included in our review, only one included thoroughly instructed regularly supervised high-quality exercises designed to involve all relevant muscles in the pelvic girdle'.*

With this statement, which Tseng et al, make to criticize studies ***not*** involving '*all relevant muscles in the pelvic girdle',* they are not regarding the functioning of the musculo-skeletal system as a whole. As Tinbergen, (1974:127) notes from practical experience in lessons of the Alexander Technique:

> *'A … biologically interesting aspect of the Alexander therapy is that every session clearly demonstrates that the innumerable muscles of the body are continuously operating as an intricately linked web.'*[34]

From this point of view, all muscles in the body are 'relevant muscles in the pelvic girdle'. In this context, it is of special interest to note that the latest NICE guidelines on the management of persistent LBP between 6 weeks and 12 months, a move away from the traditional duration-based classification of low back pain (acute, sub-acute and chronic) has been taken to looking at low BP *as a whole* highlighting the risk of a poor outcome at any time point. This is stated in the new guidelines as almost always more important than the duration of symptoms and seems to focus more on the person and seems to be a step away from local treatment and 'just' overcoming the pain[35].

3.8 Challenges and changes in the postpartum

People live within life contexts, have biographies and, potentially, detrimental habits of *use*, all of which may be the source of stress and tension. The bio-medical concept, however, tends to see LPP as an anatomical, local phenomenon, with life contexts and personality traits playing a subordinate role. Bastiaenen et al., (2006) have noted that research focuses on bio-medical factors but point out that growing evidence exists that bio-psycho-social factors may be more relevant as an intervention basis for a programme for pregnancy-related PGP and/or

[34] As noted, Alexander Technique practitioners refer to themselves as teachers not therapists to highlight that the AT is educative.

[35] https://www.nice.org.uk/guidance/ng59/chapter/Context accessed 18.5.2019

NSLBP after giving birth. Engel (1977:135) laments that the biomedical model of health care *'leaves no room within its framework for the social, psychological and behavioural dimensions of illness.'*

The puerperium, defined as the six weeks after giving birth is a bio-medical (and de-personalising) term focusing on functional aspects of a mother's reproductive organs as they return to their pre-pregnant state. 'Postpartum' or 'postnatal' simply means 'after giving birth'. A modern term is the '4th trimester', meaning the 12 weeks after delivery with the mother, not the baby, in the foreground (Johnson, 2017). A woman has multiple issues to navigate following a potentially traumatic, but certainly life-changing, event: giving birth. Wadephul et al., (2020) list physical, psychological/cognitive, affective/emotional and individual changes influencing maternal well-being. Additionally, the immediate environment, community, society and culture affect woman's postpartum well-being. These factors are presented by Wadephul et al., (2020) in a tentative model of perinatal well-being. The working conditions of the postpartum and their implications for a woman's *use* have been considered in Ch.1 and 2. We can remind ourselves of Thompson, Roberts and Currie et al.'s (2002) findings on persisting health problems between eight and 24 weeks postpartum suggesting that extreme tiredness and backache were the least resolved issues.

There is much evidence that parents frequently feel overwhelmed and stressed in the postpartum phase of life (Darwin et al., 2017; Thompson et al., 2002; Corrigan, Kwasky, and Groh, 2015). This can potentially mean that pregnancy-related BP cannot heal due to tension and it is carried over to the postpartum phase. Equally, having chronic and persistent BP combined with exhaustion may be a breeding ground for mood disorders. Thayer (1996) found evidence suggesting that the main mood effect of stress is heightened tension which could potentially lead to NSLBP. *Being tense* or *tension* cannot be located solely in the psychologicial or physical realm and is an example of what proponents of the AT call the psycho-physical wholeness of an individual.

Most authors surprisingly exclude the woman's life context when listing contributing LPP factors. Tseng et al., (2015) in their review of RCTs on postnatal exercise programmes list maternal age, parity, high Body Mass Index, smoking, oral contraceptives, previous history of LPP, uncomfortable working conditions and lack of exercise as factors associated with maternal LPP. Franke et al., (2017), in a systematic review looking at four RCTs on osteopathic

manipulative treatment for women with LPP postpartum, also fail to mention the postpartum life context in the discussion.

3.9 Mixed messages

Little is found in the literature on maternal LPP of the person's musculo-skeletal system as part of a complete bio-psycho-physical individual and within a life context. Some remarks indicate, however, that authors puzzle about the issue: Wu et al., (2015:581) note that,

> *'Clearly, the risk-factors literature suggest an impact of previous low back pain on pregnancy-related lumbopelvic pain. Although we do not know why this impact may be greater after than it is during pregnancy.'*

Additionally, *'The condition was, and in many ways still is, difficult to grasp scientifically'* (p.583). Stapleton, MacLenann and Kristianson (2002) wonder why the incidence of lower back pain rises from around 8% following birth to around 13% at one year. Bennett (2014:14) says that *'neither low back pain nor pelvic pain in the first year post-partum are clearly understood.'* Breen, Ransill, Groves et al., (1994) present results suggesting that epidurals do not appear to be associated with BP postnatally. Of the 1,185 participants, 88% of the women originally interviewed responded regarding the incidence of BP one to two months after birthing. In the same study, the main factors for new-onset pain are given as a history of BP, younger age and greater weight. The paper, titled *'Factors associated with back pain after birth'* also excludes a consideration of the postpartum context and its working conditions. This is unsurprising as the concept of *use* is not mainstream and with it, an understanding of the *use affects function* concept is also absent which may be a reason for the above-cited researcher's puzzlement. Eldred et al., (2015:452) note, however, that '*the evidence base for the clinical applications of Alexander lessons for alleviation of pain and/or symptoms of dis-ease is growing.'*

3.9.1 Conclusions

From the background to the literature review and the systematic literature the following can be concluded:

- No new effective treatment methods for postnatal LPP, tested in RCTs format, done from 2008-2018 were identified, at least in English language academic journals
- There is a paucity of research into postpartum LPP; the physical side of postpartum well-being seems to be a neglected topic

- A lack of distinction between NSLBP and PGP continues to exist in the field
- Current models of pregnancy-related LPP appear anchored in a mechanistic bio-medical understanding without consideration of the role of the working conditions of the postpartum
- Little conclusive evidence exists for effective treatment or exercise programmes for alleviating postpartum LPP either through manipulation or exercise
- Postnatal LPP pain is not seen as a symptom of malfunctioning of the whole musculo-skeletal system and a person as a whole in the potentially challenging postpartum
- The concept of *use* and *use affects functioning* does not play a role in the field
- Some evidence was found indicating that OMT could help alleviate postnatal LPP.

This review demonstrates the need for research into postpartum NSLBP and PGP and that theories are lacking as to why pregnancy-related LPP does not heal in the postpartum. A definition of 'postpartum' itself is likewise lacking. The psycho-physical approach of the AT could provide an option for dealing with the issue of postpartum LPP, especially when the *use* affects function principle is considered in the light of the working conditions of the postpartum. The following chapter will discuss research methodology and provide a philosophical justification of the research approaches of Study 1 and 2, their methods and procedures.

3.10 Chapter summary

This literature review aimed to survey the field on RCTs done on postnatal LPP between 2008-2020 to find out if recent research has revealed successful approaches to dealing with the complaint. The background to the review intended to provide an understanding of the topic of postpartum LPP, not an exhaustive treatment of it. Studying the background to pregnancy-related LPP revealed that the terminology used in the field is inconsistent and NSLBP and PGP (although they have different aetiologies and require different treatment) are not rigorously differentiated in the literature (and possibly health-care practice), muddying the field. The search protocol for the systematic review of the literature on postpartum LPP has been documented enabling replication, if necessary. The ten included RCT studies were reviewed using the Caldwell framework and the Critical Appraisal Skills Programme (CASP) to assess the overall quality and risk of bias by two reviewers who compared their independently done assessments. A summary of the results from the included trials was presented. The range of approaches and content of the trials, as well as their overall quality, varied considerably making it impossible to directly compare the included RCTs; a meta-analysis was unworkable.

Reasons for considering why the data from the trials did not always seem to be robust were given. The two main approaches to treating LPP in the postpartum were discussed which had also been identified in the background to the review: manipulative, local and 'passive treatments' from a healthcare provider or active exercise by the patient done in conjunction with a physiotherapist or, following instruction, alone. RCT trials which considered the working conditions of the postpartum and distinguished PGP from NSLBP were identified, they were in the minority of the trials included. Some of the gaps that this literature review revealed were the foundations for the two research studies undertaken as part of this PhD. Furthermore, women's voices were not included in the reviewed RCTs and this influenced the choice of perspective, slowly crystalizing a move to the qualitative perspective which was adopted in the field-work.

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4 METHODOLOGY

'A way of seeing is a way of not seeing.'

Oakley (1974:27)

The previous chapters have provided the context, conceptual background and a review of salient literature for this thesis, setting the stage for the field-work of this PhD. This chapter addresses the background methodology, my world-view, the paradigms and philosophical justifications playing into the field-work. The research approach Interpretative Phenomenological Analysis (IPA) is introduced with a rationale for choosing it for Study 1. Discourses and debates surrounding phenomenology and IPA are considered. Study 1 was a qualitative piece of research aiming to answer the question *'how do women use their experiences of learning the Alexander Technique in the early postpartum?'* The evolution of the project which culminated in this research question is detailed. Reflexive considerations are placed upfront in this chapter as a background to my epistemological position.

4.1 Personal background

Reflexivity

> *'It is said in birth mythology that a laboring woman must leave this world and go out to the stars to collect the soul of her child and bring them back to this plane. If you've ever been privileged enough to witness (or have) a relatively undisturbed birth, you know that this is true. It's a private journey one does alone with her baby. It requires quiet, space, and reverence from her team. My heart aches for all the women and babies who don't get to touch this great mystery because they have been silenced, controlled, and stripped of their agency.'* [36]

The last sentence of the above sums up my motivation to start the PhD-journey at the age of 59: it is my aching heart. On a worldwide scale, the medicalization of birthing continues to undermine women's natural ability to give birth and in 2018 WHO spoke up, issuing new global standards aimed at reducing needless interventions and potentially harmful clinical routine[37]. I am deeply grateful to have experienced three intervention-free births, including

[36] Emilee Saldaya, founder of the Free Birth Society, www.freebirthsociety.com retrieved 1.9.2017
[37] WHO guidelines 2018: https://news.un.org/en/story/2018/02/1002781 accessed on 20.1.2018

the short, sharp, beautiful home birth of my third child in 1994. In this context, I am profoundly indebted to having the posibility of learning the Alexander Technique. I have been teaching the AT since 1989 and my AT background enabled me to trust Nature and myself to birth naturally and not be influenced during the first two hospital births when the word *caesarian* was wielded by staff on duty. I *know* that without my training in the Technique I would not have had access to this trust. My husband, also an AT teacher, supported me in labouring effectively during the births with his skills.

My positive birthing experiences and three decades of teaching the AT and are the two most beneficial psycho-physical experiences of my life. Alongside my aching heart lies my conviction that the AT is an approach with much to contribute to perinatal health and well-being. This conviction imbues my thesis as I take the opportunity I have been given to research how women use it during the postpartum. It is clear, therefore, that I am an 'insider': an experienced teacher of the Alexander Technique and a mother. As a researcher, I bring my personal, professional and social positions to the research. I believe in the effectiveness of the Technique and the relationship between the research and my personal experience is obvious. On the one hand, my biography was the motivation, on the other hand, how can I be an efficient and impartial researcher with this personal history? The main preconception that I brought with me was, simply put, the Alexander Technique works. How I dealt with the potential influence of this preconception is detailed in the following.

Dean's stance (2017:pos. 814) helped me understand how reflexivity can play a role in this apparent dilemma: reflexivity is described as a possibility for research to *'retain its scientific approach even when the researcher is far from detached'.* He further acknowledges that *'our research practice is made up of the complex interplay between our personal biographies and position in the social world…'* Dean (2017) also notes in the same passage influential aspects as *'our resources as researchers, our disciplinary knowledge and space within the research hierarchy, and the specific nature of the research'* which need to be examined. These latter points presented an interesting counterpoint to my insider position: I had been out of academic life for 38 years when I started my PhD. Not being grounded in the academic terrain meant that I was not partisan, with no (conscious) leanings to one type of research or theoretical positionality. This was reflected in the development of the fieldwork concept which grew organically during many months from quantitative to qualitative with a short burst of mixed methods in between (see also section 5.1).

As I began studying again, my academic background was remote. The knowledge that I brought to this research was practical stemming from applying and refining my AT skills over years of working with clients and on myself. Doane (2003) in Finlay and Gough, (2003: pos.1284) suggests though, that,

> *'The relationship between 'theory' and 'practice' needs to be seen as less linear and separate but, rather as dialectical, recursive and reflexive. Reflection on practice is theorising and theorising is itself a practice.'*

Concerning my lived experience of three postpartum periods: this made me sensitive to the numerous issues study participants might have during this potentially demanding phase of life. This was of use in both Study 1 and Study 2. Jones (2013) sees such a position giving a researcher high insider credibility and as having the 'feel of the game'. I did, however, realise how quickly I could become an outsider during the interviews of Study 1. I had never had an epidural or an operation to 'have a baby'. The pain and associated difficulties like mobility and infant care during healing after a CS are unfamiliar to me.

The outsider/ insider dichotomy

This dichotomy, being an outsider as a novice researcher but an insider regarding the investigated fields pervaded the research from the beginning. My practical knowledge had to carry me as I was neither a trained psychologist, sociologist or a midwife. The Technique is, however, multi-disciplinary (see Fig. 2.1) and I had acquired a sound general knowledge in many relevant areas throughout the years. There were, though, enough situations during my first year where I became painfully aware of gaping black holes in my knowledge. The long absence from University meant that I had next to no background research knowledge and had a steep learning curve during the Postgraduate Training Scheme and a great amount of reading to do. I accepted the challenge with relish but sometimes, yes, as a novice researcher, there was anxiety during my first year. Encountering and dealing with this anxiety was part of the PhD-journey. I emerged more confident having passed through these phases. Additionally, having no professional ambitions, I felt I could approach the research with a free and open mind because I was not studying to gain an academic qualification to further my career; I was coming to the end of my career. My motivation stemmed from my conviction that the fields under study were worthy of research: I wanted to contribute to them. Furthermore, it was the PhD-journey, not the academic title at the end (if I was successful) which inspired me. This combination of 'insider-outsider' was fascinating as well as

challenging for all involved: my supervisors and me. Above all, it gave the project high credibility.

Detachment as a reflexivity skill

Often, the trained ethologist in me looks with astonishment at the primate *Homo sapiens.* I marvel at its unique cognitive capabilities distinguishing it from other mammals. On the other hand, disturbingly, I also see its destructiveness towards its own and other species - and towards its environment, Planet Earth. In a similar stance, I often stand back from my profession and I see the weaknesses the Alexander Technique community has in presenting what we do and sense regret that we have not yet managed to establish the field of psycho-physical education. This was a useful viewpoint throughout the 3,5 PhD years of studying and writing. As Bourdieu (2004:4) notes: *'To understand is first to understand the field with which and against which one has been formed.'*

Professional background

Being embedded in the AT world means that I have fostered non-judgmental observation throughout the years (see section 2.5 and *'non-doing'*). This ability, a highly reflexive stance, means awareness of one's *use* and it sits at the centre of fruitful teaching and practising the AT. This is 'reflexivity as presence' (Doane in Finlay and Gough, 2003). It has associations with Husserl's 'bracketing' [38] and involves intentionally putting aside unnecessary 'doings' (including thoughts) to become open and aware of what 'is' and not what I think 'is'. This distant but nevertheless close stance especially during data analysis (Bazeley and Jackson, 2013) was an aspect that facilitated impartiality during the research. Additionally, I felt due to my experience and my belief that the AT works, I did not need to prove anything about it. This mindset set me free and opened me to what the research would bring: I could just *be there* and see what was *out there*. Expressed in AT jargon it was *non-doing* in action (see section 2.5).

[38] Ashworth (1999) clarifies: Bracketing in Husserl (1973) is part of a quest for unassailable truths which can then form the basis for a reform of understanding. Bracketing aims to describe pure and indubitable phenomena, detached from the shifting and ephemeral. In this context, Heidegger points out that we can never fully bracket because *'Every inquiry is a seeking. Every seeking gets guided beforehand by what is sought.'* (1962:24). Bridging the conceptual gap Merleau-Ponty found the process of bracketing to refer not to a turning away from the world and a concentration on detached consciousness but the attempt to resolve setting aside theories, research presuppositions, ready-made interpretations.

At some point, after several years of teaching the Technique, reflexivity as presence sneaks unobtrusively into everyday life and can become a resource outside lessons and available in daily life. At least it did with me. A silent, non-judgemental observer, 'a witness', became part of my consciousness. This means noticing what I am noticing or paying attention to my attention. This 'consciousness-without-content' (Doane in Finlay and Gough, 2003) has connotations to what Ballinger (in Finlay and Gough, 2003, pos.967) calls *'exploring reflexivity in terms of 'being' rather than 'doing' - that is, as an issue of subjectivity rather than method.'* It is a useful, if somewhat frail resource, depending on how rested I am. During studying, I often used it to stand back from everything.

Life positionality

Before my return to University, I had been self-employed as a teacher of the AT for over 30 years. I have been a user of the Bach flower remedies since 1988, have been a Bach Foundation Registered Practitioner (BFRP)[39] since 1997 and have been involved in training practitioners since 2002. Something in me makes me prepared to challenge prevalent modes of thought: my two non-mainstream professions seem to mirror this. This corner of my personality helped me maintain a creative mindset during my PhD-journey and Willig, (2008) encourages thinking about the research process as a form of adventure.

Through the years I had kept up to date with health research findings on a general knowledge level and cultivated my interest in approaches to health care which could broadly be described as integrative, holistic, bio-psycho-physical or 'alternative'. This meant I had considerable background knowledge in the CAM realm, and sometimes quite specialist knowledge, for example, regarding mindfulness. I am not, however, someone who positions herself rigorously against mainstream healthcare. I think alternative methods should complement and not compete with, or debase biomedical approaches.

My commitment to person-centred living dates back further than motherhood, teaching the AT or being a BFRP. I trained in the early 1980s in Carl Rogers' approach. Bourdieu and colleagues (1999) argue that the nature of the interviewer-interviewee relationship is of key importance. Mindful, empathic, non-judgemental and authentic communication based on

[39] See www.bachcentre.com

the Rogers' variables was a resource that played a central role during interviewing and my ability to live these qualities was sharpened during the research.[40]

I have lived in Germany since 1981 and was an off-campus student. As a result, I had to familiarize myself with a cultural difference regarding the postpartum which I had not previously considered. Concerning the six weeks after birthing, in Germany, a woman has a 'title' and a status in society: she is a '*Wöchnerin*' (see footnote, p. 96). This seems to contrast with the UK where a mother after birthing no longer has a defined period of rest and no specific status in society: the culture of lying-in, postpartum confinement, (which in previous generations was often extensive) seems to have been lost. Cheyne (2016) summarises the developments: in the late 1970s and 80s women remained in hospital for around six days, almost 70 % of women now (first decades of the 21st century) remain in hospital for less than two days after giving birth. This trend is comparable to the development in Germany which was 3.3 days on average in 2019.[41] Pressure on health care services in both countries exist to reduce costs. As a '*Wöchnerin*' mothers are encouraged to especially look after themselves.[42] A woman in the UK who has just had a baby has no name apart from 'mum' (or new mum) and the question arises whether self-care has been influenced by this change in society and the seeming loss of lying-in. This example may be a situation where language has an influence on social behaviour and conditioning and the role of social constructionism is considered in a following section of this chapter.

4.2 Philosophical stance

The methodological approach of research encompasses a theory of how it should be done based on philosophical concepts and ideas as to how to best research the subject. Philosophical stances about the nature of knowledge are also referred to as worldviews meaning *'a basic set of beliefs that guide action'* (Lincoln & Guba, 1990:17). Alternatively, the words *paradigm* or *theoretical perspective* are used (Crotty, 1998). Although the researcher's philosophical ideas often remain largely hidden in research (Slife and Williams, 1995) identifying and making explicit larger philosophical ideas is recommended (Creswell & Plano Clark, 2018) and the same authors propose including the definition of the researcher's

[40] In brief, the Rogers variables are: empathy, unconditional positive regard and authenticity (C. Rogers, 2003)

[41] Source: German midwifery society: https://www.hebammenverband.de/hebammenkongress/xiv-hebammenkongress/forschungsworkshop/empirische-erhebung-des-informationsbedarfs-von-woechnerinnen-bei-der-entlassung-aus-der-klinik/ Accessed 20.9.2020

[42] https://www.eltern.de/schwangerschaft/geburt/zahl-der-woche-wochenbett.html Accessed 20.9.2020

worldview and how it shaped the research approach. Gubrium and Holstein, 2002 also point to the inter-twining of the researcher's position: the research question, the background methodology upon which the research rests, the data collection and analysis methods.

Acheampong & Mkansi (2012) highlight the dilemmas PhD students face regarding research philosophy. They call for consensus in the field to reduce confusion within the debates and classifications. In the light of this, and contradictory sources in this field, to which Crotty (1998:216) alludes to at the end of his book, expressing understanding of Denzin and Lincoln, (1994) calling the realm of examining the foundations of social research 'messy', the following sections are understood to be only an attempt at expressing clarity. Especially the realm of ontology, the study of being, appears unsettled. In the following, especially some of the (clearer) fundamental beliefs underlying the paradigm of the research undertaken as part of Study 1 are examined in more detail.

My process led me to understand the epistemological differences between objectivism and constructionism and the theoretical perspectives of positivism and interpretivism. My combined Zoology/Botany undergraduate degree had left tracks in my mind that I was not aware of and I was surprised during my first PhD year to unearth unconscious positivist leanings in concepts of what I thought constitutes valid knowledge. This influenced my envisaged research approach and what methods I initially imagined would be best used. The stages of this process are recounted in section 5.1 making transparent how the decision leading to the qualitative research of Study 1 was ultimately chosen. During this process, pragmatism also clearly emerged as my main worldview.

4.2.1 The question of ontology

Ontology is the study of being, of what 'is' and Willig (2013) encourages researchers to try to answer the questions *what is the nature of reality? What is there to know?* Crotty (1998) argues that a researcher's epistemological stance is closely related to their ontological position and notes that writers in the research literature have difficulties keeping epistemology and ontology conceptually apart. One reason may be, as Mingers, Mutch and Willcocks, (2013) suggest that the mistake is made of reducing the ontological domain of existence to the epistemological domain of knowledge. That statements about *being* are translated into ones about our (human) knowledge or experience of being. Crotty (1998) goes on to recommend reserving the term ontology for situations when it is necessary to consider *Being*, for example, when discussing specific philosophical issues such as the philosophy of

Martin Heidegger. Gadamer's stance (quoted in Dawson, 1996) on the subject is that *Being* is about the relations between us and the world and Gadamer claims that those relations are entirely linguistic; ontology is always connected to language. Poonamallee (2010) argues that most discussions on ontology in the social sciences are based on Western philosophical tradition and dichotomy. Attempts at bridging the conceptual gap between reality being either subjective or objective are seen by Poonamallee (2010) as marginal and the paper discusses a philosophy resting on *Advaita* and assumptions of non-dualism. This approach does not separate the spiritual from the mundane because they are all parts of the same ultimate reality. For these reasons, ontological considerations are not further considered here apart from a brief discussion of critical realism as a suggested ontological positioning of the research approach of Study 1, Interpretative Phenonomenological Analysis. Carter and Little (2007) adopt a similar stance in their paper on justifying knowledge, method and taking action. I also stand by this position because I have experienced non-duality several times and do not feel in a position to write about the nature of being. In a non-dual conscious state the common everyday perception of being separate from others dissolves (Poonamallee, 2010).

4.2.2 Constructivism and social constructivism

Subjective and personally unique knowledge and experience of the practical life-situation of the study participants was the subject of the research question. This is far from the positivist belief in an objective measurable world and is the epistemological stance of constructivism. Crotty (1998:8-9) clarifies:

> *'Truth, or meaning, comes into existence in and out of our engagement with the realities of the world. There is no meaning without a mind.'*

Put otherwise, 'reality' does not exist independently of an individual and it is a product of human perception. This viewpoint towards knowledge generation is dependent on an interaction between the researcher and participants and it was these complex aspects of experience which were ultimately chosen for the research of Study 1. With this approach, the researcher addresses non-quantifiable facets of a research question. Hence the research of Study 1 is based on a constructionist approach to what knowledge is: meaning is not discovered but constructed (Crotty, 1998). Merleau-Ponty (cited in Langer, 1989) argues that actual meaning only emerges when consciousness engages with the world and objects in it. To discover this meaning, the researcher has to ask and engage in listening to the telling of a narrative. Knowledge is jointly created during the interaction. Therefore, the researcher's own beliefs and constructed reality are part of the research process, and must be examined

and understood alongside the participants'. This is also relevant for analysing the interviews and writing up the findings.

The research in this thesis as a whole also has a *social* constructivist rendering which sees the central importance of culture and society in knowledge generation. Social constructivism and its concepts rely heavily on language and discourse. A woman in the UK who has taken AT lessons would presumably conceptualise postpartum backache differently than a woman without AT experience in a non-Western society. Different cultural tolerances towards postpartum LPP pain were identified in the systematic literature review in the previous chapter, with non-European researchers (mirroring different 'cultures') appearing to belittle the issue.

The postpartum in the UK today differs from that 100 years ago when a period of strict rest for women was normal and issues such as postpartum depression, (while mood changes must have also existed), had not yet been labelled as such. Therefore, devoid of a label, postnatal depression could be said to not have (yet) existed. Furthermore, Alexander's technique did not exist before his discoveries and development of the method to the end of the 19th century and can also be seen as socially constructed. Social constructivism emphasizes the hold our culture has on us: '*it shapes how we see things, even how we feel things!'* (Crotty,1998:58) and gives us a specific view of the world. The same author distinguishes as follows saying it to be useful to reserve the term construc*tion*ism for epistemological considerations focusing exclusively on *'the meaning-making activity of the individual mind'* and to use construct*iv*ism where the focus includes *'the collective generation [and transmission] of meaning'* (p. 57).

4.2.3 Pragmatism

As clear from section 2.10, a summary of research published on the AT, the results of taking lessons in the AT can be gathered, assessed and measured in studies or trials with the tools of quantitative and qualitative research methods. Hence the nature of 'knowledge' about the AT and its epistemology can be positioned in both post-positivist and constructivist/constructionist realms of research. This became clear as the planning and development of the research project moved from an initial quantitative design to 'mixed-methods' to a qualitative approach which is detailed in a following section. The process of deciding what approach the research should take belongs to the '*what works and [a] real-world perspective'* (Creswell and Plano Clark, 2018:37) - a worldview commonly referred to

as pragmatism. Pragmatism encompasses both quantitative ('objective') and qualitative ('subjective') research approaches and one of the primary historical figures associated with it is John Dewey along with Charles Sanders Peirce and William James (Creswell and Plano Clark, 2018). Alexander's path towards solving his voice problems during the evolution of his Technique (Alexander, 1923) was open and experimental: he gained his knowledge from his own practical experience. This pragmatic approach continues among the present-day Alexander teaching profession and infused studying for this PhD, the decisions made and the development of the thesis.

For years, research was commonly labelled *either* quantitative *or* qualitative with the quantitative having a patent over-emphasis as Guba and Lincoln (1994) point out. Reynolds, Kizito, Ezumah et al., (2011) note that only in the mid-1990s did publications such as the British Medical Journal begin to include qualitative studies. Crotty (1998), however, emphasizes that the division is not research which is either quantitive or qualitative but whether research is done and presented in positivist or non-positivist terms.

Mixing methods

In recent years, there has been an increase in international interest in combining quantitative and qualitative methods within a single study and this has been come known as mixed-methods research (O'Cathain, Murphy, and Nicholl, 2007). Creswell and Plano Clark, (2018) note how scholars have discussed combining quantitative and qualitative data even though philosophical assumptions behind these research approaches had previously been linked to different data types. Mertens and Tarsilla, (2015) contributed to relaxing this situation by proposing that mixed methods researchers can amalgamate different worldviews and philosophies. Study 2 grew out of such a paradigm. Guba and Lincoln (1994) propose, however, that the metaphor of such 'paradigm wars' (Gage, 1989) is overdrawn. This discussion again brings the philosophy of pragmatism to the fore which embraces a pluralistic 'what works' approach with the primary importance of the question asked rather than the methods used in the foreground (Creswell and Plano Clark, 2018). I would have felt comfortable in either world or the mixed one 'in-between'. Nevertheless, for reasons explained in the following, the field-work of Study 1 took a non-positivist, qualitative approach.

Further traits of the pragmatic worldview which Cresswell and Plano Clark (2018) note include,

- Lack of commitment to any one system of philosophy and concept of what 'reality' is.
- Researchers have a freedom of choice regarding methods, techniques and research procedures that best suit needs and purposes looking to the *what* and *how* of the research aims.
- Agreement that context, be it social, historical or political, influences research.

However, Morgan (2014) points out that clarifying pragmatism's philosophical value for social research requires overcoming an emphasis on practicality. He argues that pragmatism can serve as a philosophical programme regardless of which realm the research is focused on and that it can replace the older philosophy of knowledge proposed by Guba and Lincoln (2005) which understands social research in terms of ontology, epistemology and methodology. This, Morgan claims, rests on demonstrating the broader value of pragmatism's philosophical system: Dewey sought to reorientate philosophy's abstract concerns towards an emphasis on human experience, a step which may well have been influenced by his years of lessons with Alexander. Morgan (2014:1046) quotes Dewey's standpoint saying that,

> *'experiences always involve a process of interpretation. Beliefs must be interpreted to generate action and actions must be interpreted to generate beliefs'.*

This is a far cry from seeing pragmatism simply as a 'what works' paradigm and broadens the field considerably. Ultimately, it led to using IPA as an approach to Study 1 which focuses on lived experience and how participants make sense and create meaning of it. Worldviews are, however, as Crotty (1998) points out, 'not airtight' and overlapping areas will continue to become evident in the following.

4.2.4 Phenomenology

As the research question became clear, phenomenology as a theoretical perspective came into view. A question about experience to produce non-quantifiable knowledge from participants allowing a nuanced understanding of the human experience belongs to this paradigm. According to Green and Thorogood (2018), phenomenology is the most commonly used interpretative health research approach. The phenomenologist examines the life-worlds of individuals and Crotty (1998:78) sees it as a '*simple enough concept'* whereby, if we lay aside prevailing understandings of phenomena that present themselves immediately

to us as conscious beings and linger with them, new meanings can emerge. This conceptualisation assumes that 'these things themselves' actually exist and Husserl's notion of *intentionality* (or 'aboutness', Duranti, 1999) covers this property of consciousness being directed toward or being about something. Hence intentionality is about the relationship between a human being in her/his world; we cannot be described separately from our world. In this context, Crotty (1998) also distinguishes between construc*tion*ism and constuc*tiv*ism suggesting that the latter describes an individual engaging with objects in the world and sense-making. The former concept, Crotty suggests, refutes this happens because each of us is introduced directly into a whole world of meaning – a complete and ready-made description of the world that shapes our thoughts and behaviour.

The question of meaning

Dahlberg and Dahlberg (2019) suggest that the question of meaning is a momentous issue for qualitative research and warn against developments where meaning analysis is replaced by content analysis. Meaning seems difficult to define although central to human life (Park, 2010) and Baumeister, (1991:15) proposed a definition as it being,

> *'mental representation of possible relationships among things, events, and relationships. Thus, meaning connects things.'*

Within phenomenological philosophy, a family of qualitative methods has grown representing different approaches (Davidson, 2013). On the one hand, descriptions and only descriptions, *('going back to the things themselves')* as Husserl propagated (quoted in Crotty,1998:78) and, on the other hand, approaches with emphasis on interpretation being inherent to experience. Giorgi (2010) distinguishes between phenomenology as philosophy initiated by Husserl (with philosophical origins and goals) and discusses the perils of applying an approach with such a specific background within the social sciences. Dowling (2007) reviews different approaches from Husserl to the present day differentiating between new and traditional phenomenology noting there is confusion surrounding the very nature of phenomenology. As an example of how different phenomenology is comprehended in the literature Austin and Sutton, (2014:437) are cited and they write that it is,

> *'attempting to understand problems, ideas, and situations from the perspective of common understanding and experience rather than differences. Phenomenology is about understanding how human beings experience their world.'*

Understanding problems and ideas seem to clearly bring interpretation into the description of what phenomenology involves. Dahlberg and Dahlberg (2019) see the description-interpretation dichotomy in qualitative research as a problem and suggest a third way of qualitative research with its roots in both phenomenology and hermeneutics; humans beings cannot choose to engage with meaning or not; meaning is unavoidable. These authors quote Merleau-Ponty in this context [*'nous sommes condamnés aux sens'*][43] and argue that meaning is both something we have already understood, but also is never fulfilled; it continues evolving. People engaging in IPA are familiar with this and Smith (2019) has considered it. Furthermore, they suggest that understanding meaning is not a cognitive act because only in afterthought can a person examine what has been understood. The question of consciousness (and how developed that consciousness might be) seems to be raised with its role in sense-making and how consciousness and cognition are intertwined.

The nature of phenomenology

Crotty (1998:80) lists numerous aspects of phenomenology citing scholars belonging to the non-interpretative school of phenomenology in an attempt to clarify what phenomenology actually involves. Summarising, he suggests that phenomenology has two main characteristics: it is in search of objects of experience and not just the description of an experience. Secondly, it is an exercise in questioning what we take for granted. Barker, Pistrang, and Elliott (2016), in their discussion of the foundations of qualitative research, distinguish four central assumptions of phenomenology: First, perception and its perceived meaning. Secondly, understanding the former. Thirdly, multiple perspectives, life-worlds, exist referred to as 'epistemological pluralism' (a philosopher would read this chapter differently than a midwife). Fourth: perceptions of life-worlds are based on unconscious pre-suppositions: Husserl coined the term 'natural attitude' for these unconscious suppositions.

Quoting Heidegger (1962:59) Smith (2007) argues for phenomenology as being concerned with the thing as it shows itself, as it is brought to light. '*Phenomenon'* is Greek for to show or to appear and '*logos*' means discourse, reason, judgement. Smith summarises that *phenomenon* seems primarily perceptual, *logos* is primarily analytical and therefore to examine the thing itself, as it appears, analytic work and reason may be needed to help grasp what is being shown. In other words, the phenomenon appears but the phenomenologist can help make sense of what appears. In this context, the role of presuppositions and fore-

[43] *'We are condemned to sens (sense or meaning).'*

conceptions (Heidegger, 1962:191-192: *fore-having, fore-sight and fore-conception*) is brought into interpretation. Hence, Smith summarises, the forestucture is always there and priority should be given to the new object and not one's preconceptions. Additionally, we are not always aware of our fore-structures or assumptions and may only become aware of them having engaged with a text we are analysing.

Whereas phenomenological philosophy deals with the introspection of the philosopher's experience, phenomenology applied in the social sciences aims to capture experiences, sense and meaning-making associated with a phenomenon. The issue of meaning which Dahlberg and Dahlberg (2019) suggest is central has already been mentioned. Smith (2011) warns of too descriptive and poor IPA with superficial themes because it does not go deep enough into this realm of sense and meaning through the researcher's interpretation.

What a participant shares in an interview depends on how an interview is conducted and how able an interviewer is in bringing the participants' lifeworlds beyond description to the fore and this is addressed in more detail in the next chapter. Willig (2008) notes that this variable which influences the quality of an interview puts difficult questions on the agenda concerning language, for example, how able are participants in communicating their experience to the researcher? Tuffour (2017) in a critical overview of IPA also suggests that there is an unsatisfactory acknowledgement of the integral role of language in IPA. Smith, Flowers and Larkin (2009) see meaning-making as occurring within narratives, exchange and discourse as well as through metaphors. Insight into experiences is the primary aim of IPA and this activity is automatically interconnected to language. But the question indeed arises as to whether IPA is for eloquent participants only. Willig (2008) criticises the inadequate addressing of the constitutive role of language in much phenomenological research. For the novice researcher, entering into these conceptual worlds for the first time, these debates are confusing and not easily resolved.

4.2.5 A feminist perspective

As is clear from what has already been said, women in their postpartum situation were central to both Study 1 and 2 and were set up so women contributed to the generation of knowledge. This approach is seen by Barnes (1999) as feminist praxis by foregrounding and valuing women's experiences and not just measuring, for example, their BP levels as in the RCTs reviewed in Ch.3. Women were valued and given space to articulate their experiences, they were not 'research subjects'. The participants were also not talking to 'an expert' and

this equality in the research relationship is seen by Millen (1997) as a key concept of feminist research. The studies were set up with the researcher interacting with the women on eye-level in their postpartum life situation aiming to understand and explore their personal perspectives. Barnes (1999) sees a research process which is transparent and cooperative, (not objective and distanced), which addresses contemporary issues to improve care for childbearing women as part of feminist practice in research. Bell Hooks in a Lancet editorial (2019) sees feminism increasingly as a movement against inexcusable gender inequality and liberation from sexist role patterns and not just to improve the lot of women, which has been feminism's main role over the decades as it transformed and shifted sociological and educational perspectives (Millen, 1997). The perinatal phase is situated within societies and is hence also a political issue; the shortage of midwives in both the UK and Germany being a fact in this context. Additionally, the rate of Caesarean sections for 21% of births globally in 2015 is higher than the 12% in 2000. In the UK, CS births have increased from 19.7% in 2000 to 26.2% in 2015 (Wise, 2018). The figures for Germany for 2017 are 30.5% with a clear west-east divide. The *Länder* (the states) of east Germany having a lower rate (26.9%) compared to 34.8% in the west (Statistisches Bundesamt, Destatis) 2018.[44] The social construction of birth therefore seems to differ in the western *Länder* of the Federal Republic of Germany, with a capitalistic history, contrasted with the *Länder* of the former German Democratic Republic with a socialist-communist history until dissolution in 1989 when the two Germanies were reunified.

4.3 Theoretical perspective of Interpretative Phenomenological Analysis

IPA aims to,

> *'understand how a particular lived situation is experienced by a particular person at a particular time whilst recognising that this experience is indivisibly woven into the person's lifeworld'* (Eatough and Shaw, 2019:50)

IPA is a qualitative, experiential and psychological research approach (Smith et al., 2009). It aims to integrate three perspectives: phenomenology (examination of lived experience), hermeneutics (interpretation of lived experience) and idiography, (the individual and particular), to understand participants' meaning and sense-making within a specific context (Smith and Osborn, 2003). IPA, therefore, straddles philosophy, methodology and methods

[44] https://www.destatis.de/DE/Presse/Pressemitteilungen/2017/10/PD17_348_231.html accessed on 13.1.2021

and Hefferon (2013) states that it occupies an epistemological position 'somewhere between' critical realist and contextual constructivist.[45] It arose in the mid-nineties of the last century (Smith, Jarman and Osborn, 1999) and is, therefore, a comparatively young and still evolving approach. With its distinctive, developed and detailed procedural guide, IPA also offers a theoretical foundation (Brocki and Wearden, 2006). Tuffour (2017) suggests that IPA offers a flexible and versatile way of entering into another person's life-world and understanding it. Smith, Jarman and Osborn (1999) provide detailed descriptions of the analytic process which is considered in the next chapter on the methods of Study 1. The clear procedures for doing an IPA means a 'double hermeneutic' is used: the participant is making sense of her/his experience and the researcher is making sense of what the participant is making sense of. Hence, meaning-making is an inherent concern of IPA (Smith 2019). The analysis aims to understand participants' meaning and sense-making within a specific context as well as linking common ground among participants in a study (Smith, and Osborn, 2003).

These diverse philosophical perspectives of IPA are not always easily reconciled. Some traditional descriptive phenomenologists, notably Giorgi (2010) and van Manen, (2017) who have challenged the use of the word phenomenology in IPA's name maintaining that the subject of phenomenology is to capture how the world presents itself to the individual in an immediate (unmediated) sense *'to capture experience in its primordial origin or essence, without interpreting, explaining, or theorizing'* (van Manen, 2017:775). This includes the texture of experience such as *'vague feelings, pleasures, tastes, hunches, moods and ideas on the margin of consciousness'* O'Connor & Hallam, (2000:245). These precognitive aspects of experience are seen as central exactly because they are inarticulate and unfocused.[46] Giorgi (2010) points to a gap between phenomenological philosophy and the scientific research practices requiring an articulation of a phenomenological theory of science which is not yet systematized or securely established.

[45] Critical realism is a branch of philosophy distinguishing between the *real* and the *observable* world. The former can't be observed and exists independently from humankind's perceptions, theories, ideas and constructions. The world which is familiar to us and which we 'understand' is constructed from our own experiences and paradigms, through which it can be observed. Critical realists see *un*observable structures causing observable events and that the social world can only be understood if the structures that generate events are understood. (Archer, Bhaskar, Collier et al.,1998).

[46] A phenomenological study on the *primary control* study could, for example, lead to more understanding of the concept introduced in section 2.6 and whether it exists.

Zahavi, (2019) finds the exchange on these issues in the journal Qualitative Health Research between 2017 (van Manen) and Smith (2018) both disheartening and perplexing and lays blame at the feet of both authors for promoting various confusions concerning the nature of phenomenology. Zahavi, a philosopher trained in phenomenology, reaches conclusions on the debate that indeed clarifies both positions. The crux of the conflicting arguments seems to be that whereas IPA is experiential, its analysis is carried out to learn more of a participant's cognitive and affective reaction regarding their life situation and experience (Smith, 2011). Crotty (1998:80) also notes that the role of cognition seems not to be in line with the following as part of *the things themselves,* the phenomena that phenomenology proclaims to concern itself with and quotes (Heron 1992:164):

> *'exhorting a pristine aquaintance with phenomena unadulterated by preconceptions: it encourages the inquirer to sustain an intuitive grasp of what there is by opening his eyes, keeping them open, looking and listening, not getting blinkered'*

Or even more clearly, Wolff (1984:192) also quoted by Crotty (1998:80),

> *'Phenomenology asks to not to take our received notions for granted…but to call into question our whole culture and being in the world in the way we have learned it growing up.'*

Willig (2008) also seems to criticise IPA and the justification of the role of cognition in the approach by noting that Smith's version of the phenomenological method implies a Cartesian conceptualisation of the individual as the owner of a set of cognitions, ideas and beliefs which is then used to make sense of the world and create meaning. While Smith et al., (1999) subscribe to a belief in and concern with the chain of connections between verbal report, cognition and physical state the emphasis on cognition indeed does not seem compatible with some aspects of phenomenological thought. Smith (2018) maintains IPA is phenomenological because of its concern with pre-reflective and reflective domains of lived experience. Tuffour (2017) likewise suggests that the role of cognition in phenomenology is not properly understood. Sense and meaning-making seen as formal reflection seem indeed more to resonate with cognitive psychology. Indeed, van Manen (2017:778) pointedly says he is '*not criticizing Smith for doing interpretive psychological analysis.'* Giorgi (2010) suggests that greater clarity would exist if the founders of IPA called the approach *Interpretative Experiential Analysis*. Smith (2018) rejects Van Manen's (2017) criticism stating that IPA is founded on a model of the person as being a self-reflective agent and it is this which makes

IPA hermeneutic. This he sees as aligned with Heidegger's understanding of hermeneutic phenomenology.

The conflicting stances may be summarised as follows: Smith (2018) sees IPA focusing on the reflective domain and Van Manen (2017:776) sees phenomenology as being '*the study of the primal, lived, pre-reflective, pre-predicative meaning of an experience.'* Smith (2018) also positions himself clearly by noting that no one has the authority to rule what does or does not constitute the complex and multiple facets of phenomenology.

The emphasis of research using IPA was for many years examining illness experience (Smith, 2011) and has now widened into a variety of realms such as making sense of business failure (Heinze, 2013), teaching in higher education (Holland and Peterson, 2014) or identifying education and training needs of informal caregivers (Dringus and Snyder, 2019).

The open, qualitative nature of the research question in its final form meant that IPA appeared the most suitable approach for this research as it examines personal lived experience in detail to flexibly explore the meaning of that experience and how participants make sense of it (Smith et al., 2009; Pietkiewicz and Smith, 2014). This aspiration of IPA also played a pragmatic role in choosing it as understanding women's postpartum experiences of AT was central to the fieldwork and also giving women a voice in this potentially challenging phase of life. In this context, it is worth pointing to Charlick, Pincombe, McKellar et al., (2016) who emphasize the value of research findings in the field of midwifery that address individual experience, variation and the need for holistic approaches. They contrast this kind of research with practice guidelines informed by quantitative research such as RCTs.

Other phenomenological research approaches

Dowling (2007) traces the development of phenomenology as a philosophy from Husserl to its present-day positioning in research. She describes how Edmund Husserl's philosophy differs from his successor, Martin Heidegger, in that he believed in describing the phenomenon or experience without reflection or thought. Dowling summarizes that Heidegger disagreed with Husserl's weighting of the description of the exploration of phenomenon, because he theorized that lived experience is an *interpretative* process. IPA belongs to this latter hermeneutic tradition of phenomenology. Gadamer, Dowling summarizes, followed on from Heidegger's work and his approach with its 'horizons of meaning' that involve our linguistic experience (which makes understanding possible) was

also not addressed by the research question of Study 1. A present-day phenomenological psychologist aligned with the founder of this phenomenology is Armedeo Giorgi, as mentioned, and his research approach is called descriptive phenomenology contrasting it with interpretative phenomenology. The descriptive phenomenological side of the women's life experiences was not the focus of this research and was therefore not considered as a methodology. Racher & Robinson, (2003) locate the various forms of phenomenology in the following paradigms: Husserl (positivist), post-positivist (Merleu-Ponty), Heidegger (interpretive) and Gadamer (constuctivist).

At the start of the next chapter (Methods) a rationale for IPA is given. The non-phenomenological approach of Grounded Theory is considered and why it was not adopted to answer the research question of Study 1.

4.4 Chapter summary

This chapter gave insight into my professional and personal background and the philosophical, paradigmatic backdrop to the field-work research of Study 1 and Study 2. Pragmatism was explained as my worldview and the underlying paradigm of the field-work. I justified my way of maintaining academic rigour concerning my preconceptions of the method being researched as an experienced teacher of the Alexander Technique. The role reflexivity played and how that relates to the AT was considered. The choice of IPA was justified as an appropriate approach to address the research question aiming to understand how women use the AT in the postpartum. The critical debates within the research and philosophical arenas on IPA were considered. They touch on the role of language and cognition and are to do with the issue of meaning. The realms surrounding the question of what phenomenology is, the subject of several significant 20th-century philosopher's complete life works, can only be inadequately addressed in a single thesis chapter. The intention of Ch. 4 was also to make transparent why and how the research evolved, and this is further developed in the next chapter.

5 METHODS of STUDY 1

'Thus scientific methodology is seen for what it truly is - a way of preventing me from deceiving myself in regard to my creatively formed hunches which have developed out of the relationship between me and my material.'

Carl Rogers (1955:275)

5.1 Evolution of the study and public involvement

Reflexive box The original project name of the studentship publicised early 2017 was 'Women's experiences of the Alexander Technique in Pregnancy.' Five months into the PhD, in February 2018, I spoke to a mother in Hull who shared her two positive birthing experiences but spoke in detail about her very negative postpartum phases. She had become exhausted and stressed, felt alone and unsupported, she had experienced pain and was still (several years later) trying to make sense of her experiences. Something shifted in my mind during this encounter. After discussing in supervision, we agreed to relocate the project to the postpartum and unwittingly started to fill the gap in the evidence which has already been discussed.

The field-work of Study 1 in its final structure developed over eight months. The first plan was quantitative, a three-armed pilot randomised controlled trial (RCT) with mothers experiencing postnatal BP. In three groups, one having AT lessons, it was intended to measure perceived pain, functional disability, depression and general wellbeing at three weeks and three months postpartum. This initial plan for a quantitative approach stemmed from the researcher's undergraduate degree and implicit (unexplored) understanding of what constitutes 'valid knowledge' and how that knowledge can be obtained. The most robust research on AT has been done in the area of NSLBP (Little et al, 2008) which has been detailed in section 2.2. This played an unconscious role in the first scheme and also influenced decisions on the subject of the literature review.

Public involvement

In November 2018, via STAT, an email was sent out to UK members inviting colleagues with experience of AT in the postpartum to exchange ideas and give input on the planned RCT. Five Alexander teachers were prepared to give their time via Skype and become involved. The results of this public involvement (see Appendix 4, section 10.4) were so rich with *experience* that it decisively influenced the development of the research project and changed

its course. *Experience* is the realm of qualitative research. However, towards the end of 2018, the quantitative paradigm was still at the fore and the research proposal went through several weeks where the development of a survey to collect numerical data regarding 'postural awareness' of women with experience of the AT during postpartum was considered. This would have involved creating a Likert scale and defining what postural awareness is. The plan was discarded due to time restrictions of the PhD that developing such a scale would have needed. The focus of interest then became *how* women with experience of the Alexander Technique apply their knowledge in the postpartum. This qualitative research approach promised to explore and give insight into using the AT in this phase of life. To answer the research question, '*how do women use their experiences of learning the Alexander Technique in the early postpartum?*' IPA was chosen and justifications for this decision have been considered in section 4.2.3 and 4.3 and are delineated from other approaches in the following.

Rationale for IPA

When the research question was finally formulated and it became clear that Study 1 would be phenomenological, the background philosophy was available to clarify the research methodology and theoretical perspective. The question had not been posed to fit a method or methodology. Grounded theory (GT) was not a methodological option as there was no intention to generate a contextualised theory from collected data (Cohen, Glaser and Strauss, 1969). It was the life-world experience of the participants which was in focus. Thematic analysis (TA) was also not considered which, although it can provide a useful and flexible research tool potentially providing a rich, complex and detailed account of data (Braun and Clarke, 2006) it is a method for identifying, analysing and reporting themes it is not primarily a method for in-depth examining of phenomenological lifeworlds as IPA is. Discourse analysis (DA) examines how people use words and language in the construction of social reality was also not a methodological option. While both IPA and DA focus on linguistics, and phenomenology relies on language, linguistics was not addressed in the research question of Study 1. The study aimed to understand how women experienced their use of the AT in the postpartum and engage them in co-construction of knowledge creation with the researcher. The findings of Study 1 (Ch. 6), its Discussion (Ch.7) as well as the integrated Discussion of Ch.9 universally show the role of language in the field-work of this PhD; without language, there would be no findings.

As already noted, distinctions between epistemology, theoretical background, paradigms, methodology and methods are non-air-tight (Crotty, 1998). Perhaps likewise, IPA straddles philosophy, methodology, methods and analysis. (The AT is multi-disciplinary and can equally not be situated in a specific realm.) Debates about the nature of phenomenology have been considered in section 4.2.3 of Ch.4. The open, qualitative nature of the research question in its final form meant that IPA appeared the most suitable method for this research as IPA aims primarily to investigate how people make sense of their experiences (Smith et al.,2009).

5.2 Research rationale and aims

Potential benefits of Study 1 included:

- Understanding the role AT can play in the challenges of the postpartum and its relationship to well-being.
- Raising awareness of the under-researched working conditions of the postpartum. The working conditions of the postpartum as used in this thesis has been considered in section Ch. 1, section 1.31.
- Highlighting the subject of holistic self-management in the postpartum.
- Contributing to the topic of self-management in the field of preventive health care in general.

Specific aims of the study:

- Explore if and how applying the AT in the postpartum relates to self-care and well-being.
- Understand if and how women with AT experience use it whilst feeding/carrying or otherwise.
- Learn if and how women use their AT skills to address tension-related musculo-skeletal pain.
- Understand if and how AT experience is used to cope with sleep disturbances and sleep deficit.
- Explore if and how AT experience plays a role in the interactions and the relationship with the infant.

Ultimately, it is planned to write a practical Postpartum Handbook drawing on the results of the field-work of this Thesis. The findings of Study 1 were used to set up Study 2 which aimed to research the practicability of AT content for postpartum women without prior AT experience.

5.3 Sample size, eligibility and inclusion criteria

Both Hefferon and Gil-Rodriguez (2011) and Smith et al., (2009) make a case for fewer participants are more when using IPA. This is seen as enabling depth of understanding and interpretation and not just 'reporting'. Eight participants were considered to provide enough data for the research question to be answered. The aim was to recruit eight mothers with different levels of experience of the Technique to participate in the study. As AT involves a learning process, it was assumed that different levels of knowledge would be revealed through the following three groups:

- Clients (pupils) who are taking (or have taken) AT lessons from teachers.
- Trainees (students) on a training course to become a teacher.
- Teachers of the Technique who have completed the teacher training course.

To participate in Study 1, participants had to be over 18 years old and have English as a first language or equivalent language skills. A question in the screening survey clarified this aspect. Further criteria were that participants should be be 3-9 months postpartum at the time of the interview. Following an ethics amendment, 3-13 months[47] and have experience of learning the AT from a member STAT or are in a STAT approved teacher training course or are a member of the Society. Participants should be UK residents and, as a client, have had a minimum of 10 AT lessons.

The rationale for the last inclusion criteria was that the AT involves a learning process, it was assumed that a minimum of 10 lessons would provide an adequate knowledge basis to participate in the study although STAT recommends the public take at least 20-30 lessons. Mothers of twins could join the research if meeting the inclusion criteria. Due to different health care systems around the world, the field-work was confined to the UK to create a sense of homogeneity coherent with IPA. Women who signalled interest in participating but lived outside the UK had to be excluded.

5.4 Project approval, ethical considerations

When the research question was finalised in February 2019, an application was made and ethics approval was granted by the Ethics Committee of the Faculty of Health and Social Care, University of Hull (Appendix 3). As recruitment did not proceed through the NHS, no ethics

[47] Ethics amendment, 28.5.2019, Appendix 3, section 10.3

approval from the NHS was required. As some of the issues during the interview could potentially lead to distress, a support sheet was developed and made available to participants following completion of the interview (Appendix 5, section 10.52). Sources of distress could be remembering a traumatic birth, birth injuries, the effects of sleep deprivation, altered partnership dynamics, miscarriage stories or PND. The potential for distress was expected to be minimal but the support sheet was considered to be ethical, responsible researcher behaviour. The participants were seen, to a certain extent, to be in a vulnerable phase of life. I aimed to conduct the interviews with sensitivity, empathy and appropriately - adapting to participants as necessary. Throughout the recruitment process and the course of the study, it was made clear to participants that their participation was voluntary and that they could withdraw at any point up to the start of data analysis. I was open to conducting interviews personally when I was in the UK but, as recruitment progressed, it was obvious that women were prepared to do online interviews via Skype.

In summary, the participants were selected purposively to make a relatively homogenous sample as a group of women for whom the research question was meaningful. Farr, Blenkiron, Harris et al., (2018) point out that purposely selected participants are representative of a group or perspective, rather than a population. Furthermore, these authors note that by purposely selecting a relatively homogenous group of participants insights into the similarity and variability of individuals who are representative of that perspective can be gained. Smith et al., (2009) suggest that Yardley's, (2000) criteria of quality *rigour* is fulfilled in an IPA study when the participants are carefully selected to match the research question and are reasonably homogenous. More homogeneity (for example, eight women with babies 4-6 months old) was not possible within the time restraints of the PhD.

Ethics amendment

The initial time corridor of 3-9 months postpartum was chosen to address homogeneity issues. However, in May 2019, a month after launching recruitment, it was decided with both supervisors to apply to the Ethics Committee to lengthen this time-period to 13 months postpartum (Appendix 3). The main reason for this was an impression of the *intensity* of the postpartum from participants initially contacted with during recruitment. Women have to have space and capacity to participate in research during this life phase and the longer time-span, it was hoped, would mean more women would feel able to participate.

5.5 Development of the interview protocol

As the method to analyse the interviews was IPA, an approach committed to *'unfurling of perspectives and meanings which are unique to the person's embodied and situated relationship to the world'* (Rajan-Rankin, 2014:2430), it seemed appropriate to ask the participants what AT *means* to them as an opening question. The other questions were related to the working conditions of the postpartum as defined in this Thesis (Ch. 1, section 1.31), with the women to be asked about their experiences and understanding of postnatal well-being and how they used AT postnatally. The question on postpartum well-being arose because the AT has affinities to the topic. Self-efficacy is negatively influenced by tiredness (Rogala et al., 2015; Chau and Giallo, 2015; Lesniowska et al., 2016) and tiredness is can be an issue in the postpartum due to infant care at night. A question regarding using AT experience to deal with sleep deficit, sleep disturbances and tiredness was therefore included.

Piloting the protocol

To pilot the interview, colleagues who had participated in Public Involvement (see Appendix 4, section 10.4.1) were approached to receive feedback on the appropriateness of the interview questions and to gain a feel for timing in the interview. Two colleagues were prepared to participate in pilot interviews. Both these interviews took place on 19.3.2019 but the collected data were not included in the analysis (Appendix 4). The most obvious result from the pilot was the need for an opening question *not* starting with a challenging question on what the AT means to someone. It was therefore decided during supervision to start the interviews with a general opening question inviting participants to share their pregnancy and birth stories. This would give a background to the interview and allow participant and interviewer to become acquainted. A second result from these pilots was, following transcription, that an opportunity arose to examine the interview style. It was necessary to modify interactions away from a general empathic verbalising of the overall experience of a participant towards a more specific request for detail regarding the phenomena under investigation. More prompts and some probing was also needed at times, to enable a deeper exploration of participants' experiences (Appendix 5, section 10.5.4).

5.6 Recruitment, the research website and the screening survey

Recruitment took place via an e-mail from STAT to members (Appendix 5, section 10.5.1), word of mouth, social media and the teacher's networks. Teachers were asked to pass on the details to (ex)clients, students in teacher training or were asked to participate themselves. Information for participants regarding the study was available online via neutral pages of the researcher's website.[48] Recruitment was launched on 16. April 2019. The second wave of recruitment was started in early July 2019, recruitment was completed on 24. July 2019. A leaflet as a Word document with the same information as the research website could have been provided to be printed and distributed if requested. The research website was linked to an initial screening survey (Appendix 5, section 10.5.1). This short survey enabled me to gather basic demographic data and determine the 'Alexander status' of the potential participant: whether they were a client, a trainee (student) or a teacher. The aim of this first survey was also to find potential participants with similar demographics. In this initial survey, telephone numbers of potential participants were collected and I contacted the potential participant within 24 hours of receiving the survey results. This first personal contact enabled potential participants to ask questions about the research. Further data were collected during the call: any health issues, age, occupation, education. A date for the interview to take place was then made if the woman fitted the inclusion criteria and wanted to participate. When a woman agreed to take part in the research, a consent form (Appendix 5, section 10.5.2) was sent by email.

5.7 The field-work in action

Semi-structured interviews of around 60 minutes (max.70 minutes) in length with open-ended questions designed to collect 'rich data' and explanations from participants regarding their personal experience were used in this research. This was the best approach to explore *'those things we cannot directly observe, feelings, thoughts, intentions, previous behaviours, the meanings they attached to the world'* (Patton, 1990:278). Rabionet (2011:565) sees such interviews as *'flexible and powerful tools to capture the voices and the ways people make meaning of their experience.'* Probing for depth and clarity is possible in a semi-structured interview, the participant can bring in her own story, meaning that flexibility towards the unexpected is given, and the researcher can question something she has not understood. Above all, empathy via active listening, authenticity and rapport can develop, relaxing the

[48] www.speek.de/research

participant and hence enabling disclosure in a constructive and 'safe' interview-conversation situation. Smith et al., (2009) see empathy in an interview, putting the participant at ease as showing *sensitivity to context*, one of Yardley's (2000) broad principles of quality in qualitative research. The same authors see Yardley's (2000) second broad principle of quality in qualitative research of *commitment* fulfilled when efforts are made to realize the complex nature of good interviewing by employing listening and interviewing skills. The researcher strived to take up a stance of deliberate naivety, remaining open and receptive to the participant's stories and experiences and being aware of the need to ask questions neutrally. Attempts to 'bracket' AT knowledge were not always successful. The full list of interview questions is in Table 5.1. Prompts were used as appropriate to elicit more information.

Table 5.1 Interview guide and questions

1. Please, to start, tell me briefly about your pregnancy and your (last) child's birth
2. And how does the Alexander Technique play in…what does it mean to you?
3. What does postpartum well-being mean for you?
4. How, if at all, did you apply your AT knowledge while recovering from giving birth?
5. Did your AT experience play a role in your postpartum well-being? How?
5. And regarding carrying and feeding?
7. What about dealing with sleep deficit, exhaustion and sleep disturbances?
8. Did your experience of AT play into your relationship with your baby? How?
9. Is there anything you'd like to add regarding AT and the postpartum in general?
10. Would you like to say something about <u>not</u> using your AT experience?
11. We're coming to the end, is there anything we haven't talked about that you'd like to add?

All interviews took place via Skype. During the interviews themselves, the interview schedule was the instrument to create data with the participants. A reflexive researcher needs to continually attend to the evolving relationships between themselves and their participants (Finlay and Gough, 2003:pos.1601), be aware of dissonances, (should they arise) and be prepared to address them. In other words a '*constant re-examination of context and appropriateness*' (Dean, 2017:pos.1854). Authenticity in personal encounters is a significant variable (Baldwin, 1999).

Reflexive box

I felt I could ask a question during the interviews and 'sit back' and listen to the answer without having to do. This non-doing was similar to teaching the AT (or working on oneself): giving input to a system without end-gaining but attending to the 'means whereby' (section 2.7). Timing in interviews, not feeling either anxious or hurried and being able to develop rapport with people online for the first time were some valuable resources. Additionally, I attempted to keep a professional distance but was also open to briefly sharing experiences, if and when appropriate, during interviews. If I did not understand something, I did not pretend I had and I felt free to say so.

An approximate hour time-slot for the interview via Skype to respect the women's postpartum life situation was suggested, as opposed to a set appointment. It was made clear that if a participant wished to postpone (or cancel) the interview, it was possible without having to explain. It was also suggested that on the agreed day, the participant, when she was ready, contact the researcher, (not vice-versa), within the agreed hour time-slot. This, it was hoped, allowed for flexibility and respected the participant's life situation with a small baby with potentially irregular sleeping times whom the mother was most possibly looking after. This approach met one of the four broard principles Yardley (2000) presents regarding quality in qualitative research: *sensitivity to context.* The aim was to conduct interviews without babies to promote undivided attention to the interview-conversation.

Data collection

The online interviews took place between April and December 2019. At the start of each interview, consent was again obtained and also consent to record the interview. It was emphasised that participants could stop the recording at any time if they wished and that they could terminate participation at any time during the interview. In one case, it was offered to stop the interview as the participant was deeply fatigued but the participant preferred to proceed. Notes were made in the research diary following the interview to record experiences and first impressions of the interview and participant. Vicary, Young, and Hicks, (2017) see the reflective journal as a contribution to quality and validity during the IPA research process.

The interview question guide, Table 5.1, was used flexibly to answer the research question. Hence data took place at three time points:

- the preliminary screening survey
- the telephone call after a response to the survey
- semi-structured interviews.

Data protection and confidentiality

Participants were assured of confidentiality at the start of the interview. The recordings of the interviews were deleted after re-listening, re-reading and checking the transcription and safe storage of the extracted data as Word documents. The transcriptions were saved on to the researcher's password-protected laptop and respective back-ups. The transcripts will be destroyed five years after completion of the PhD thesis or five years after the publication of any other papers, whichever is longest. All documents stored on the researcher's computer (for example the pdfs of the survey) are password protected. Pseudonyms are used for the participants throughout this thesis and names of significant others in the interviews and any other identifying details and interviews have been anonymized.

Changes made to the interview protocol

Interview skills developed from experience and, as the research progressed, the researcher was able to mentally note when an interviewee had pre-empted questions of the interview protocol. Instead of using the prepared list of questions, it was increasingly possible to trust that the participant would answer the interview questions without being directly asked as the general topic under research was broached. Hand-written notes were taken on points to return to at a later stage of the interview if the interviewee changed the subject and more depth was of interest on certain topics. In summary, during the first two interviews, the researcher asked participants questions on the interview protocol one by one, by the fifth interview questions were being answered in more random order and information was being collected spontaneously, but conscientiously. The data collection process benefited as the interactions became more conversational and less formal. Smith et al., (2009) see appreciation of the interactional nature of data collection during the interview using skill, awareness and dedication as an aspect of Yardley's (2000) principle of quality *sensitivity to context*. Additionally, a reflexive stance was used after transcription to improve prompts to

avoid leading questioning but to promote participants' opportunities for sense and meaning-making as they engaged in self-exploration during the interviews.

Reflexive box

During the data collection of Study 1, I did not think I had to 'bracket' my AT knowledge. I could not have done that anyway, for how can I 'unknow' and put aside my tacit knowledge and years of experience? Participants knew they were speaking to someone who understood AT processes and insider jargon. This facilitated the data collection process and my insider position means I am at ease in the AT world. This was beneficial while creating knowledge with the interviewees: the participants assumed mutual conceptual and practical understandings. I nevertheless had to approach parts of the interview exchanges as if I did not know what they meant. My ability to recognise (in the split-second decisive moments of conversation) when it would be beneficial to ask a participant to explain what she meant as if she were speaking to someone without an AT background grew the more interviews I did. I sometimes found myself not really understanding what someone had answered. I'm only authentic in an interaction if I say that I have not understood and feel free to say so. When I did say that I had not yet really understood, participants often became more specific, the answers more detailed and more insight was gained contributing to answering the research question. I then had a clearer sense of entering someone's subjective world. This making explicit of my experience during interviews also played a role in maintaining a professional distance.

5.8 Interview transcription and analysis

The possibility of recording the interview via Skype was not used for confidentiality reasons. A secure external smartphone app was used for recording and a Philips Voice Tracer DVT1300 as the backup. Interviews were transcribed verbatim using speech recognition software Nuance Dragon 15 and the 'voice transcription technique' (Matheson, 2007). For this procedure, a computer with an internal microphone is needed along with voice recognition software. The software had to be trained to recognise the researcher's voice which only took a few minutes. Present-day transcription software understands punctuation orders and produces an accuracy of approximately 95%. Transcription, a crucial aspect of data management, can, according to Matheson (2007:548), be *'an intensive, tough, lonely, tiring procedure,… [and] physically taxing and time-consuming'.* At the same time, transcription is seen by this author as a unique opportunity to be focused on the data without being distracted by the process of data collection. Park and Zeanah (2005) note that it is more

efficient and less physically demanding to use a 'listen and repeat' technique. This method was chosen with the AT and the researcher's well-being in mind to reduce the hours needed during a PhD sitting typing at the computer. Additionally, the 'listen and repeat' method is faster than the 'listening and typing' transcription method. Following initial transcription, the text was corrected while re-listening to the interview recording. Pauses, laughter, hesitations, tone of voice, speed of speaking, visual demonstrations of posture and/or feeling which I had noted during the interview were then added, as appropriate. 'Turn numbers' according to who was speaking were added to the transcript to create an audit trail. Following each interview transcription, there was the opportunity to modify and develop the interview technique and to improve data collection in the subsequent interview. A research diary was kept as part of researcher reflexivity (Appendix 5, section 10.5.6) and supervisors gave feedback on the developing interview technique during supervision. Reflective distance while staying close to the data during analysis were aspects of maintaining quality, this was helped by using the research diary.

Analysis: Coding, clustering and themes: creating super-ordinate themes (SOTs)

Without the time-consuming process of coding which organizes the vast amount of dense data from a semi-structured interview, there would be no possibility of making sense of the collected information (Creswell, 2011). Miles, Huberman and Saldana (in Hashimov, 2015:4) describe a code in qualitative inquiry as:

> *'…most often a word or short phrase that symbolically assigns a summative, salient essence capturing and/or an evocative attribute for a portion of language-based data.'*

Analysis was done according to the principles of IPA (Smith et al., 2009; Pietkiewicz and Smith, 2014). This process involved a four-step procedure (Smith et al., 2009), which is described in the following. These four overall steps were rough; in practice, further intermittent steps were necessary and the researcher was continually moving back and forth between different levels of analysis. Initially, printed transcripts were closely read to become familiar with the content and the participant's stories as a whole. Important life world experiences of the participants were noted in the right-hand margin on this paper document. In a second step, descriptive, linguistic and interpretative codes of data were added to a right-hand margin of the printed transcript and then in a digital Word document which had four columns with the interview text in the middle.

Table 5.2 Interview excerpt: 4 columns, turn numbers and first steps of the analysis

	18.	N: you said a while back, the Alexander Technique is useful in not wasting energy, could you say a bit more about what that means, how do you do that?	
Sense of self, sense-making: *(here: presence & staying centred..)* Difficulty describ-ing process.	19.	F: well, I think it is literally about staying more centred, y'know, in body and mind, - well, again- [*laughs*], again… it's tricky to describe exactly, to me… it's the feeling of staying more centred [*laughs*] rather than, umm… wobbling around and getting swimmy and rushed… it's just thinking: „here I am" - umm… yeah, I think it just builds up, it… it… it… over time, it has quite a big effect on how much energy you have and, you know, when you've got young children, then you need a lot of energy all the time, so it definitely helps with that so, … yeah -	Clear, centred presence by using AT. ‚It…' 3x – Hesitation: difficult to describe experience & process, even for eloquent participant as she seems to be. Sense making of process.

In a third stage, themes were noted in the left-hand margin. It took several weeks to analyse a single interview in this manner and it was a highly iterative process. Openness to the participant's life-world experience was sharpened the longer the interview transcriptions were engaged with. A special focus was noting what the experiences appeared to mean for the participant and the *way* that participants made sense of their experiences (Kidd & Eatough, 2017). Contradictions, rich detail and 'gems' Smith (2011) were also aspects inviting special attention during the analysis.

A mind-map for each participant of individual identified themes was then created using a white-board (Appendix 5, Fig.10.2). The individual mind-maps of participants were then used to make a mind map of cross-case themes to cluster them using the same large white-board. These themes were tracked during this stage by examining the individual mind-maps and referring back to the interviews (Appendix 5, Fig.10.5.5). In this way, super-ordinate themes could be identified.

Additionally, an excel spreadsheet (Table 5.3, a,b,c) which listed participants' themes chronologically was used as a second method to filter for themes, codes and key-words to also bring common themes to the fore. The spreadsheet included hundreds of quotes which could be tracked to the original interview via the turn number. From this spreadsheet and the large white-board mind-map, an overview of SOTs and sub-themes was created. The fourth stage of analysis with a cross-case summary of the themes which were common to all (or most) participants was created from the mind-maps and excel spreadsheet. The overall aim of the multiple analysis steps was to transition from a focus from *'the particular to shared and from the descriptive to interpretative'* (Smith et al., 2009:78). The whole process was non-linear and the final step established similarities and connections as well as differences between the participants. Differences could be identified by filtering themes for individual participants in the excel spreadsheet. The ultimate aim was to stay close to the data to anchor the analysis in the voices of the participants. The defined four analysis levels were not 'clearly cut' but flowed into one another, and were continually refined. The detailed procedures

fulfilled the Yardley et al., (2000) broad quality criteria of *commitment and rigour* and *transparency.*

Tables 5.3 (a,b,c) Using the spreadsheet to identify themes

Name	Theme	'Tur'	Quote/Keyword/Code
Fiona	Pregnancy	5	uneventful: overdue
Fiona	Birth: at home, unplanned	5	*Dramatic, forceful, intense, painful.'* Overwhelmed by a major, unplanned event?
Fiona	PP narrative: sense-making	5	one wk. clinic after birthing: health issue with baby
Fiona	Sense-making of dealing with the unexpected	9	comparing to previous experience (long 1st birth)
Fiona	Meaning-making of AT	13	AT made a *‚huge difference'*: in good shape, physically fit, pain-free.
Fiona	Meaning-making of AT	13	able to *'look after herself'* with AT
Fiona	Meaning-making of self-care with AT	15	physical, practical level (lifting, carrying, etc)
Fiona	Sense-making of self-care during breastfeeding with AT	15	Doing things differently. Using AT for good HNB alignment, avoiding *‚twisting and hunching'* (comparison)
Fiona	Semi-supine sense making: self-care benefits	15	s-s for ‚recovery', significance: *„huge"*: awareness of being *‚twisted a bit'* - activity to rectify.

a) chronological list, all participants' themes

Name	Theme	'Tur'	Quote/Keyword/Code
Fiona	Sense making of carrying decisions	49	‚Wearing' a baby and keeping aligned HNB relationship and noticing what's going on physically
Annie	Sense-making of using AT & carrying	65	using awareness of use and AT knowledge
Annie	Sense-making of directing while carrying	67	conscious weight distribution, use of sling
Isa	Meaning-making of carrying and AT: sense of ag	95	being able to *‚make sure baby is comfortable'* - understanding how to do that because of AT.
Philipp	Sense-making of carrying and AT, sling usage	99	Applying AT knowledge: a sling that sits on top of the iliac crest: the load through lumbar region.
Marie	Sense-making: awareness of use while carrying	34	extends to putting pram in car
Mel	Carrying & AT narrative	35	Suddenly having to change self-mangement to carrying a baby when becoming a mother
Mel	Sense-making of using regular S-S praxis in conte	36	One sidedness (right) was helped by daily S-S praxis.
Mel	Carrying & AT: sense-making of crawling:increas	40	Crawling in lessons done

b) The chronological list of themes filtered for the cross-case theme 'carrying'

Superordinate Theme (SOT) Awareness & Sensing embodiment	icipant &	Quote/Keyword/Code
Sub-theme 1: awareness of what? *'...if only I could live here all the time...'*		
Awareness, then pleasure of heightened sense of embodiment	Mel 56	*I felt really connected to my body, I felt connected to my feet on the*
Awareness, then using it for a decision to not rush reactively to baby	Annie 57	[hearing baby crying] *I have a pair of feet on the ground and I have*
Awareness, then using it alter conditions of *use*	Mel 64	*... it's just having an awareness of where everything is and umm... I*
Awareness, then using it bring attention to conditions of use	Isa 55	*maybe it* [the back pain] *is trying to tell me something- if you bring*
Awareness, then reflection-in-action to do less	Isa 85	*because you don't need to walk around holding yourself up and jus*
Awareness, then getting comfortable and decsion to let tension go before going to slee	Isa 104	*... make sure, you know, my head is in a comfortable position on th*
Awareness, then making decisions to help pain-free movement after a CS, especially in	Phil 50	*I guess movement was very limited... so... having a sense of... where*
Awareness/listening what the body needs to recover after a CS	Marie 15	*... trying to listen to your body and what it needs to recover, in my s*
Awareness, then using it as a reminder of good use to avoid pain	Marie 27	*because I'd forgotten about it and then regretted that because I no*
Not sensing embodiment and getting lost in thoughts and emotions	Isa 114	*I think it is totally easy to leave your body behind...* [N: okay] *I really*
High awareness, low threshold to working on self with minor niggle in her back	Fiona 68	*the moment I get even the slightest niggle... niggle in my back, I'm:*

c) SOT and sub-theme filtered for the sub-theme 'awareness of what'?

The separation into SOTs and sub-themes is not always as clearly delineated as suggested because sharing lived experience is a multifaceted undertaking. For this reason, it is acknowledged that the findings are only one way of presenting the analysis of the data. The main criteria for excluding data from analysis was content unrelated to answering the research question and study aims, data on pregnancy, birthing, significant others and the AT

itself was therefore excluded. An overview of the excluded SOTs is in Appendix 5, section 10.5.7. An example of excluded themes from the interview with Isa is given below.

120.	*[Baby interaction…]* N: is there anything else you want to talk about anything that we haven't covered? I: One important thing is, I think, in those first few months, after- you know, the first few months that never gets mentioned- and I think is *really* important is… is… the health of the *partner* [*pause*] I wish… I don't know, I wish he was better prepared- it- I did so much preparation and it was so much about the mother- and, you know, let's tell the fathers how they can help, they are going through so much in all of this… there was no taking into account the impact on them… you know, I think, I suppose that's going off on a bit of a tangent?
121.	N: I think it's a totally important point, postpartum- I mean men are postpartum as well, aren't they? They haven't given birth but your husband, your partner, was with you during the birth, and went with you to hospital and he's been through something as well-

Figure 5.1 The type of data that was excluded from the IPA

Quality in qualitative research

The researcher was aware that the identified themes were affected by her background in AT and her role in the interview. The role of supervisors who read the interviews and gave feedback was, therefore, part of quality assurance. (Deutsche Forschungsgemeinschaft., 2000:12) argued that whatever steps are taken to deal with the emic and etic,

> *'…researchers cannot, in the final analysis avoid their own research lens in rendering reality. Thus, the goal is to acknowledge that multiple interpretations may exist and to be sure that as much as possible is done to prevent a researcher from inadvertently imposing her or his own (etic) interpretation onto a participant's (emic) interpretation'.*

During the IPA presented here I have taken care to present coherent 'arguments' with the findings. Smith et al., (2009) suggest that this is fulfilled if the themes hang together logically and ambiguities and contradictions are clearly dealt with, Yardley's et al., (2000) criteria for quality in qualitative research of *transparency and coherence* are met. Likewise, the presentation of credible, transparent evidence with the possibility of tracing each quote through its turn number to its place in each respective interview was an aspect of maintaining quality in this study. Further comments on quality have been added as appropriate in the many steps presented in this chapter.

5.9 Chapter summary

In this chapter, issues of trustworthiness, sensitivity to context, rigour, transparency as elements of quality in qualitative research (Yardley, 2000; 2008) have been addressed. This included making transparent how the research question of Study 1 organically evolved and how Public Involvement influenced the research and the ultimate choice of IPA as the appropriate method to answer the question *How do women use the AT in the early postpartum?* IPA was contrasted with other research methods as further justification for using it. The recruitment procedures were laid open and inclusion and exclusion criteria were shared. The development of questions for the interviews has been explained and how piloting the interview protocol led to changes. The context of the interviews with postpartum women and efforts on the researcher's part to respect the participants' life situation were shared. The methods used to transcribe and analyse the semi-structured interviews have been detailed. How super-ordinate themes were identified has been related. The role supervisors played as an aspect of rigour and the audit trail have been laid open and how the research diary was used. Some data were excluded and the reasons for this have been given. The following chapter is an interpretative phenomenological analysis of the findings of Study 1 and starts with an overview of the study participants.

6 FINDINGS of STUDY 1 – an IPA

'One thing I had learned from watching chimpanzees with their infants is that having a child should be fun.'

Jane Goodall [49]

6.1 Overview of participants and findings

Eight women with varying levels of AT experience and no prior health issues who were in their late 20s-late 30s and UK residents were recruited and participated. One participant (a trainee) who was interviewed was excluded from the analysis as she had moved outside the UK. The women were 4-13 months postpartum, of European white ethnicity, in a relationship and none had left education at 16 years of age. Clients in the study had had over 30 lessons which is compliant with STAT's recommendation of 20-30 lessons to be able to use the Technique in everyday life. An overview of further demographic data of participants is given in Table 6.1.

Table 6.1 Demographic data of participants of Study 1

Pseudonym	**Months postpartum***	**Parity**	**Birth of last child**	**AT 'status'**
Marie	07	P	CS, hospital	Client
Annie	05	M	SVB, home	Teacher
Fiona	05	M	SVB, home (unplanned)	Teacher
Isa	12	P	SVB, home	Teacher
Phil	07	P	CS, hospital	Trainee
Mel	11	P	SVB, (home then hospital)	Client
Jennie	04	M	Ventouse aided birth	Client

*At the time of the interview.

CS = caesarian section. SVB = spontaneous vaginal birth. P = primiparous, M = multiparous.

[49] Retrieved on 11.1.2021 from: https://www.goodreads.com/quotes/275690-one-thing-i-had-learned-from-watching-chimpanzees-with-their Dr. Jane Goodall, primatologist, anthropologist, known for her long-term research on the chimpanzees of Gombe Stream National Park in Tanzania. She received her PhD in ethology from Cambridge University, UK in 1965.

The study participants are given voice in this chapter through an IPA. I set out the superordinate themes and sub-themes from the hermeneutic analysis of the interview transcripts. I commit to showing convergence and divergence within the themes and between the participants. Quotations echoing the participants *lived experience* have been foregrounded in the analysis with the more reflective, descriptive passages placed in the background. This chapter presents the (major) super-ordinate themes and (major) sub-themes as distinct and separate, but in practice there was a continual theme overlap of the lifeworld experiences of participants. Pseudonyms are used throughout the following and participant's cited quotations are annotated with turn numbers from their interviews. The research question *how do women use the Alexander Technique in the postpartum?* was kept in mind as a touchstone during analysis and writing up. Interview lengths ranged from 73 minutes to 55 minutes. The following table gives an overview of the interview circumstances which addresses the issue of infant care and researching the postpartum.

Table 6.2 Interview circumstances

Pseudonym	**Time of day**	**Infant care**
Marie	Evening	Baby in bed for the night
Annie	Morning	Baby present, asleep, following feeding. Woke and present towards the end of interview
Fiona	Evening	Baby being put to bed for the night by husband
Isa	Midday	Baby having morning nap, woke and present towards the end of interview
Phil	Evening	Baby in bed for the night
Mel	Afternoons*	Grandmother
Alice	Mornings*	Baby having morning nap during first two interviews, woke after 20 minutes. Third interview: mother outside pushing sleeping baby in pram.
Jennie	Evening	Baby in bed for the night

Alice's data were excluded from the IPA. *More than one interview.

The following diagram (Fig. 6.1) gives and overview of the findings portraying the postpartum as the background life situation of the Study 1 particpants (green). Superimposed on this (blue) is the AT and the oval circle extends over the postpartum life situation as its use is not limited to the postpartum. The orange circle summarises the four main super-ordinate

themes that were identified. Three are elabourated in Table 6.3 to include subthemes. There then follows the IPA.

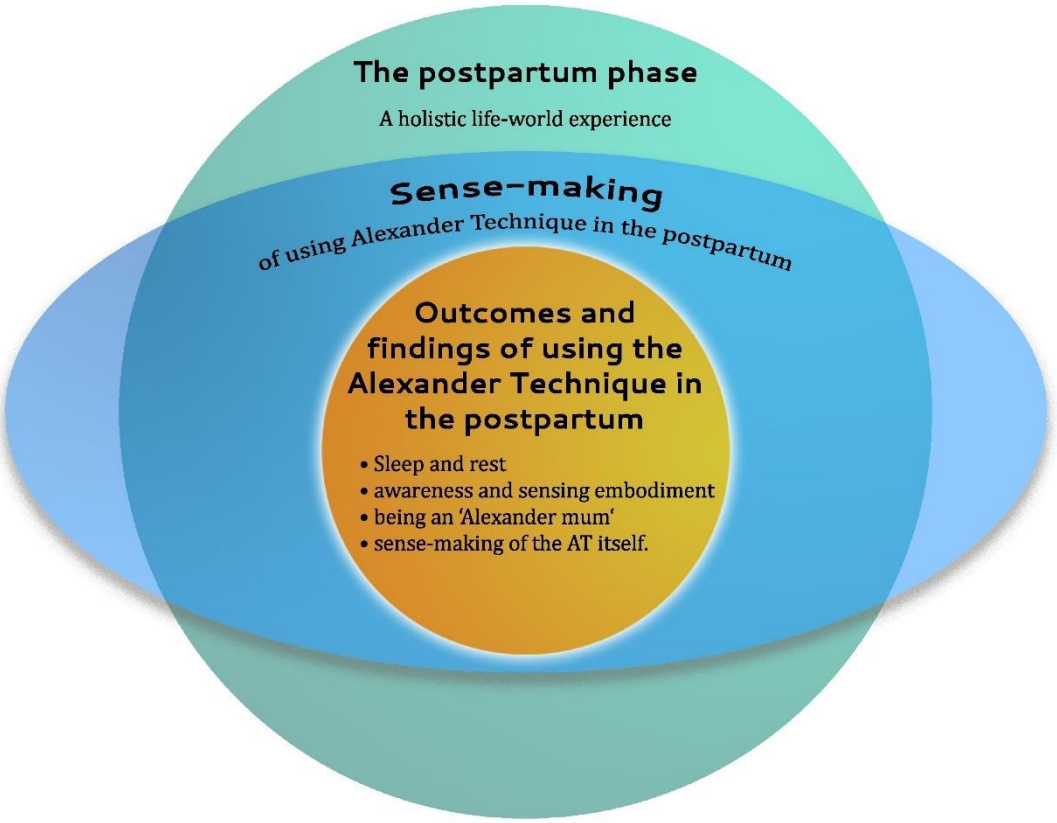


Figure 6.1 Overview of the four super-ordinate themes (SOTs).

Sense-making of the AT was excluded in the following IPA as it was not related to answering the research question.

Design: Harald Gress, Freiburg

Table 6.3 Analysed SOTs and STs

SOT 1: Sleep and rest	ST 1: a mother´s sleep is interwoven with her infant´s sleep	*´knowing that sleep is the all-important.´*
	ST 2: rest and AT praxis in semi-supine	*´so it´s magic´*
	ST 3: becoming aware of habits	*´I can slip into that habit´*
SOT 2: Awareness and sensing embodiment	ST 1: awareness of what?	*´it´s just having an awareness of where everything is…´*
	ST 2: discomfort, pain and awareness	*´there´s always more space you can get in your body…´*
	ST 3: scrunched and hunched: breastfeeding	*´if I didn´t have the Technique, I would just feed any old how and just be uncomfortable…´*
SOT 3: What´s it like being an ´Alexander mum´?	ST 1: a sense of agency	*´I can just walk! I don´t need a wheelchair!´*
	ST 2: carrying	*´knowing how to have a baby on you´*
	ST 3: relationship and presence	*´she notices very quickly if you´re off somewhere else …´*

.

6.2 SOT I: Sleep and rest

´…knowing that sleep is the all-important.´

ST: A mother´s sleep is interwoven with her infant´s sleep.

All participants in this study spoke of how their and their infant´s sleep were ´interwoven´. How this relationship played out and how it influenced their well-being varied among the participants. The role that the AT plays in this area is also diverse.

Fiona is co-sleeping with her baby and aware that in the UK that is regarded as ´dangerous´ but she co-sleeps because she feels it is right for her:

> *´if I didn´t co-sleep with my baby, I´d be utterly exhausted. So for me, the fact that I have figured out how to feed her lying down, we just go to bed, […] and I feed her and she wakes up a few times ... and we fall back to sleep… the number of other mums I have met who are - it just makes you boggle!´ [laughs]…*(23)

Fiona seems in-tune with her baby in such a way that she is not experiencing disturbed nights. In the same passage, she says, *´I actually don´t feel like I sleep any differently…´* She seems astonished by mothers she has met who and are tired and do not feel free to co-sleep with their baby. Making sense of this, she says:

> *´..but what I can see is that if I didn´t have so much… kind of confidence, I suppose, to actually think: ´well, this is fine, I think this is healthy´ - umm… I see a lot of other mums- I might be dragging myself out of bed, to be kind of hunched over my baby and getting more and more exhausted… […] but I do think I am particularly lucky, because I not only did my Alexander training, but I did it with [X] she´s also, you know, a pregnancy and birth specialist so, you know, she gave me loads of sort of… confidence…´* (23)

Concerning her decision to co-sleep, the AT to Fiona seems to be a factor which instills confidence giving her freedom to act as she feels appropriate, even if it is against a societal norm. She puts herself in place of women (using the first person singular personal pronoun), to understand their reasons for not co-sleeping. She envisages *dragging myself out of bed* in a tense posture to be *hunched over my baby.* This description, the postural epitome of how a woman without AT experience might feed, hints at Fiona feeling different from other mothers and imagining their habitual behaviour, on a postural level. Speaking of the benefits of co-sleeping Fiona says: *´I just haven´t been sleep deprived, I´m not seriously tired…´* (56)

Annie relates how her sleep and her four-month-old baby´s sleep were negatively inter-related when he caught chicken-pox:

> *´…so his sleeping pattern went off with that, so we went away on holiday and his sleeping pattern was still thrown, I found myself feeling a lot worse for not having the sleep. It´s amazing after having a few nights of not having it- really threw me and I noticed how a… like, an impact on feeling well…´* (23)

Her baby´s sleep was *thrown* and it really *threw* her after a few nights, implying a big shift from their normal rhythm with a baby who is otherwise *´an amazing sleeper´* (51).

> Researcher*: ´could you say what you mean by ,´it really threw me´ and an ´impact on the feeling well´?*
>
> Annie*: ´It made me feel more down generally, not really, really down but more inclined to feel weepy or just a little bit more grumpy, more weepy…* (25)

Annie had lost a close relative recently and engages in sense-making that the disturbed nights meant that the pain of grief was more likely to be felt: Her ´thrown´ is emotional and she ´lands´ in a different (more vulnerable and sensitive) place within herself. She also rationalised, considering the role of hormones in feeling weepy and more anxious when tired. She connects feeling more exposed to memories of the loss of psychological well-being, *´postnatal depression and anxiety´*(6) in her previous postpartum when tired (25).

Phil, when asked what postpartum well-being means to her, relates what it means to her life that her baby´s sleep and hers are interwoven as she has a *´baby who doesn´t sleep very* much´ (35). She is

> *´massively feeling the effects of sleep deprivation, like, it´s killing me, so, I suppose postpartum well-being, I don´t feel that well-being, because of the sleep - umm… sleep deprivation has impacted- so obviously that impacts how I interact with everything that happens to me …´* (35)

The extent of the impact reverberates in *´like, it´s killing me´*. Although she is using the phrase metaphorically, it seems that some of her life has been ´lost´ as she experiences the impact on all levels:

> *´…everything is more difficult, like physically… I am just way more clumsy, […] I feel like… my thoughts are completely jumbled up, I basically can´t have a normal conversation any more… […] and emotionally, just finding everything really difficult […] just crying, like, around four months, just*

> *crying all the time, just uncontrollably, umm… and then it got better the last couple of months…* (39)

The quality of Phil's being in the world on the physical, mental and emotional levels has been affected by sleep disruption and deprivation.[50] Explaining, she relates that her baby,

> *´…was waking up every half hour, two hours was like, incredible, mostly she was waking up every hour and she´s been doing that you know, from 0 to 4 months. […] Now it´s definitely better, she does like, three hours, and then gradually gets worse throughout the night but she´s just- she´s incredibly happy and inquisitive and lovely and just doesn´t want to be asleep, she wants to be awake playing… so enough!´* (41)

Sense-making and rationalising is taking place in this passage with Phil as a person seemingly placed behind the baby. The *so enough* at the end seems to draw a line under the topic and might indicate how weary she is of the issue, and not just physiologically ´tired´. Phil is the only interviewee actively receiving AT work (and not working alone on herself) as she is back in her teacher training classes four mornings a week:

> *´…the other day, I had a turn [51] with [teacher´s name] and she was: ´use your time in the course to get like, a deep sense of rest-, umm… [laughs] and I´m like: bit of an expensive way of just getting some sleep! But anyway, she´s giving a table turn [52], I do shut my eyes and she did really very- just slow, deep work rather like- I do feel slightly more rested, umm… so in a way, it is just as beneficial as sleep.´* (43)

Receiving AT work from her trainer helps Phil feel more rested despite sleep deficit. The laughter in this passage,*´bit of an expensive way to get some sleep´* also seems to touch how uncomfortable the sleep issue is for Phil. As an individual with a natural need for restorative sleep, she has been taken to the limits due to chronic sleep fragmentation and deprivation but is continuing to fulfil her maternal role. Her comment: *´we´ve got a little baby who doesn´t sleep very much´* was followed by*: ´well, I know, most babies don´t sleep very much…´* (35). There seems to be an unresolved conflict between the perceived typical experience of sleep deprivation during the postpartum, and what it means for her: its impact is immense. In the interview, there were situations where Phil could not easily find the right word to articulate her thoughts, probably due to her fatigue. Likewise, her short term memory sometimes seemed compromised: she occasionally forgot the question she was answering while answering. This interview was the only one where I felt it was ethical to offer to stop

[50] Additionally, Phil entered motherhood with a major sleep deficit, after over 60 hours of labouring.
[51] A turn in an Alexander class means a trainer works with a student
[52] Working with the Technique on someone who is lying semi-supine.

the interview (which took place in the evening) because of the interviewee´s fatigue. Phil did not accept, wanting to contribute to the research.

Isa also highlights the centrality of her baby´s sleep for her life. She experienced an injury during birthing and found feeding in standing helpful:

> *´my whole life just [laughs] revolves around wanting this baby to sleep, so… if I am already standing up and she is already, like, dozing off it is much easier to put her down if I am standing up…´* (93)

Her laughter seems a little uncomfortable and is probably linked to sharing what her baby's sleep for her life means. Isa summarised during the interview her creative and practical (if unusual) learning process on finding a pain free position to feed in. The fragility of putting down a dozing baby while hoping (and needing) for baby-free time comes over. She is sense-making of why she does what she does. Other participants also reported *thinking things through* and looking for solutions. This theme is one of the subjects of the third super-ordinate theme: *´What´s it like to be an Alexander mum?´*

ST: Rest and AT praxis in semi-supine

> *´…so it´s magic´*

All participants reported AT daytime praxis by working on themselves lying down in semi-supine with a range of psycho-physical benefits to their well-being. Doing AT in semi-supine was described as an effective approach to self-care with participants using it as a psycho-physical, mind-body ´reset'. The practice was much more than just resting.

Mel´s sleep is also interwoven with her baby´s through co-sleeping, and she uses the Technique while lying in semi-supine in the mornings to iron out the consequences of the night:

> *´I´d just do Alexander Technique, and after the night, you´d just end up in all kinds of funny positions because of the baby, you´re trying to not crush the baby, you know, you end up- your arms are up here and I would never have been able to sleep before in that position but I have been able to, but you come out feeling a bit 'oh´ and you just do semi-supine and you´re like, back again, so it´s magic.´* (36)

Feeling a little distorted after such a night, feeling not quite herself (*a bit ´oh´*) semi-supine praxis means she is *back again* (feeling herself). Again, the value of using the AT comes over and how she seems fascinated: *it's magic.* It is interesting to note where Mel switches from

seemingly generalising, using ´you´, to the first person singular, where she seems to have more ownership of the described experience. She starts with ´I´, then seems to generalise on the topic of co-sleeping and doing AT in semi-supine. Although she is speaking of her experiences in the last sentence she generalises with ´you´ possibly indicating her belief that the AT can help anyone who uses it.

AT in semi-supine; the process

Mel was asked to describe using AT while lying in semi-supine:

> *´So I use a book under my head, usually, and I lie on the floor, grounded on the floor, hands usually on my tummy and my legs up, my feet grounded on the floor, then I just notice kind of… where my body is at, where areas of tension are and I just send a kind of wish to the areas that are tense to release: I also think about my head going to the back of the room, my feet spreading out on the ground, my shoulders releasing, my knees going up towards the ceiling, my hands relaxing, it´s just kind of… like a way of navigating around the body and I very much notice that my body gradually, gradually kind of begins to release and then I start to feel more like a ‚sense of my whole´, the whole of me? I generally- I find that things then begin to slow down and often I feel how tired I am, when before, it had been kind of my racing through and I´m: ´ah, actually I am- I´m quite tired now´… so I always feel grounded afterwards and I feel [unclear]… kind of centred, I suppose…´* (13)

Having worked on herself with Alexander *directions*[53] for a while, Mel becomes aware of her *body releasing* but it is clear that the process is more than just a release of muscular tension. She also becomes aware of her whole self and seems to access a clearer, deeper sense of it. The racing seems to be more superficial. She also hints at coming more in touch with how she *really* feels: her tiredness becomes evident. Although she does not explicitly say so, it sounds as if she feels better despite sensing her tiredness. Perhaps because she is less tense but more congruent, more ´herself´?

Feeling centred and grounded

What does ´feeling more centred´ and ´feeling grounded´ really mean? Centre is a location whereas the ground is an object. ´Feeling the ground/earth´ may have arisen as an expression meaning someone is aware, present and in contact with the sensation of the earth beneath one´s feet, *now.* ´Feeling centred´ may mean ´being in the middle of oneself´, neither only in

[53] Phil was asked what *directions* are: *´Directions are thoughts… that you give yourself* […] *the idea of changing… of being conscious of your response to a stimulus and the direction is the little thought you give yourself to have a conscious choice how you are going to react. ´*(73). See Ch.2, section 2.5

the head (thoughts) or the feet (going somewhere) nor in the hands, (doing something). Someone describing themselves as ´feeling centred´ sounds as if they are more in balance with all aspects of themselves, neither living mainly in their head nor caught up primarily in activities and busy-ness. The expressions complement one another and have connotations of ´being´ rather than ´doing´. The terms may represent ´felt senses´ (Gendlin, 1981).[54]

Isa also describes the semi-supine praxis as grounding and explains why. She adds an emotional component as well as feeling revived:

> *´I suppose it is very calming and… it can be- umm… revitalising, not sure that- I suppose so- umm…. very grounding- I think, that´s an important part of it… because there is a different level, I think, when you´ve got your whole body actually on the ground… yeah,… very grounding I think, you know, emotionally too - and supportive…´* (82)

Isa hesitates as she searches for words while sense-making of her experience. Difficulties with using language to convey this kind of kinaesthetic experience come over. Isa describes sensing her whole weight on the ground as supportive which, it physically, (gravitationally) is for all vertebrates on land. But consciously experiencing it, the tactile sensation, appears to make the difference, enabling releasing and letting go of excess psycho-physical tension.

Fiona also uses the word centred and makes sense of what it means to her after being asked to say why she says the AT is useful for not wasting energy:

> *´I think it is literally about staying more centred, you know, in body and mind, - well, again- [chuckles]… it´s tricky to describe exactly, to me… it´s the feeling of staying more centred [chuckles] rather than, umm… wobbling around and getting swimmy and rushed… it´s just thinking: ´here I am´ - umm… yeah, I think it just builds up, it- it- it- over time, it has quite a big effect on how much energy you have…´* (19)

Again there are difficulties describing experiences and hesitations arise as Fiona searches for words which here seem clearly connected to difficulties describing the kinesthetic-proprioceptive realm. She contrasts *wobbling around, getting swimmy and rushed* with *just thinking: here I am* and *the feeling of staying centred.* The latter sounds clear, uncomplicated and stable and as if she is in good contact with her self as a whole. She implies a learning

[54] *´A felt sense is not a mental experience but a physical one. Physical. A bodily awareness of a situation or person or event […] A felt sense doesn´t come to you in the form of thoughts or words or other separate units, but as a single (though often puzzling and very complex) bodily feeling.* (Gendlin, 1981:10) Gendlin also calls a felt sense a *´body-sense of meaning´.* (1981:10).

process, saying it is a quality or skill that *builds up over time*. She shares her observation that how much energy she has is connected to her practice.

Fiona practised the AT in semi-supine during an uncertain week in hospital after the unplanned home birth of her daughter. Her infant had a health issue which was resolved within a few days:

> *´…so I did actually literally go and lie down in semi-supine and think about releasing […] about recovering, that was actually what enabled me to deal with it all… […] and the fact that I could look after myself still through it all, that was actually a great relief…´* (37)

It is striking that Fiona's AT praxis means it enabled her to *deal with it all* and to *think about recovering*. The latter seems to be much more than a physiological process: she is implying she can influence the process from the cognitive plane. Being able to look after herself seems to have been an empowering as well as supportive aspect during an uncertain week. The value of using the AT and what it means to her is conveyed. Fiona describes doing the AT in semi-supine leading to *´…that kind of restoring the calm of the mind…´* (56)

Marie directly associates working on herself in semi-supine when asked if she uses the AT in connection with sleep and exhaustion:

> *´I do just in terms of generally trying to create my well-being, I do lie on the floor, from time to time, I don´t feel I do it as much as I would like to it … but it does help me reset my body but - and therefore, just creates a little calm mentally, which might help the exhaustion.´* (41)

She describes the process and what happens during her praxis:

> *´…to particularly think of my back ´melting into the floor´ and… just try and… create that bit of… mental space, by - yeah, I suppose by concentrating on my directions… it does allow for sort of 'messy thoughts´ [to stop] that intrude into everyday life when I am at home…´* (43)

Similar to other participants, doing AT in semi-supine has a positive infuence on Marie´s mental state and unwanted *messy thoughts* can be stopped during her praxis. Well-being in this context appears to be something Marie can actively generate. Her process is similar to Mel´s description and her description of her back *melting into the floor* conjurs up associations of something hard becoming more fluid and soft. However, she adds:

> *´…but I must say, I don´t do it as much as I´d like to - maybe a couple of times a week, but it does help …´* (42)

ST: Becoming aware of habits

> *´ I can slip into that habit…´*

Marie speaks of not doing the AT in semi-supine as much as she would like, which appears to be a contraction: she would like to do something but doesn´t do that something? Jennie relates that she is *´not finding it easy´* to regularly practise AT lying in semi-supine and has only done it *´a handful of times´* (62) since the birth of her daughter. Not doing the AT regularly in semi-supine was a recurring theme throughout the interview with Jennie. Sense-making of why she says her children sleep in a sling (22), she enjoys being out with other people rather than alone at home (28) and cooking and infant care in the morning leaves little time for herself (28). Potentially coming closer to the underlying issue, she says she is not good at looking after herself, and her mum is not good at looking after her (54). Towards the end of the interview, however, she says:

> *´It always comes back to that, it´s always a struggle, well, it is for me, to kind of prioritise the sort of ´looking-after-yourself-bit.´* (130)

Jennie corrects herself in this sentence by saying *´it is always a struggle, well, it is for me´,* but something rings true in her initial generalisation. How many (new) mothers find it *easy* to prioritise for themselves and not for their infants, their household, other children or partners? Nevertheless, her confidence in using her Technique skills comes over when she says: *´I know that if I took the time to do semi-supine that would give me a huge 'big boost´ sort of feeling´…* (97) but she still finds it a challenge to practise regularly. What might be behind this issue seems to become clear from Annie, who often speaks of her sense of duty during the interview, and the tension between that and her need for rest:

> *´I´m tired right now…telling myself I have a hundred and one things I should be doing, is no help at all … and what I am going to do is have a rest.´* (12)

Annie speaks of *´letting yourself off the hook´* (12) as she tussles with her sense of duty. A hook in this context has vivid associations of being caught, not being free; of being´held´. Habits [55] have such properties, and she makes it clear that it is a habit that she is wrestling with:

[55] Habits in an AT context do not mean a habit such as smoking, see p.42.

> *´...and I can slip into that habit if I´m not carefu-… l, yeah, I can go: oh, I can´t do that now because I´ve got to do this, that and the other…´* (42)

Such habits might be the source of both Marie and Jennie not finding it easy to do something that they know would be beneficial.

Reflexivity box

While writing this passage, millions of women around the world struggling with their habitual sense of duty suddenly came to my mind. I thought of them, committed to fulfilling their maternal roles but tired and in need of rest. And suddenly, thinking of them… I was moved.

A field the AT addresses is becoming aware of unconscious self-management habits and learning to practise inhibition and *direction* to modify them. All participants had something to add here, showing diversity and some of the range of habitual human behaviour where the AT can be used.

Fiona, talking about routines and advice from people in her surroundings about *´baby should do this baby should do that´* (17) says,

> *´…having the kind of freedom to say: ´let´s not get stuck in habits, let´s look at what´s going on´ and well, you know, being able to – step out a bit, rather than getting stuck in the thing or… routines.´* (17)

Fiona seems to have a non-reactive distance (which she calls *stepping out a bit*) giving her a sense of freedom to see what is really happening. This awareness skill seems to help her avoid habits and dysfunctional routine.

Isa speaks about negotiating her habit of closing herself off, which changed through her AT training:

> *´ … just not closed off - then a big part of that is just being… sort of comfortable, comfortable here and now, you know… so not having to escape, presence… although it is tempting sometimes [chuckles] but at least I know now, how not to escape, to use it [the AT] and stay here- … which is so valuable and makes everything so much easier…´* (19)

Isa's habitual being in the world has altered from *having to escape* to one with more presence and being pain-free; being *comfortable*, seems central to this. She notes the *temptation* (like being tugged) of her previous (habitual) state but says she knows now *how not to escape and*

stay here. The passage ends with an acknowledgement of inhibiting her habit to *close off* and the extent of how beneficial that is.

Mel speaks of being aware of motor habits:

> *´…I think the main thing is- umm… the transition from carrying to kind of bending, putting her in her cot, picking her up from being changed and they´re the areas where I probably feel I need a little bit more support with the Technique- because I naturally, I just go into what I do… which… I know I can go down into monkey*[56] *and umm… I know I cannot collapse in my back and it is there for me… but it is not necessarily natural to me yet to do that…´* (43)

Mel habitually, *naturally,* shortens her back during certain typical postpartum activities although *knowing* (being aware) she could perform the activity otherwise. She seems to be saying that she has not yet learnt to consciously deal with this pattern of movement yet, feeling she needs *a little bit more support with the Technique.* Again, we sense someone aware of a continual learning process.

Jennie explains how the Technique is ´available´ to her even if she does not find it easy to prioritise her self-care by practising the AT in semi-supine:

> *´but there is still an awareness in me, … I still catch myself- umm.. you know, not being present and that kind of thing, it is still an awareness that I have day-to-day- well, probably not day-to-day now* - (130)

What Jennie has retained from her lessons is the skill to observe her *use*, and she catches herself not being present. Correcting herself, Jennie says her ´AT-awareness´ is probably not available day to day now. Here she also seems to be alluding to the AT as a skill that needs to be cultivated and refreshed. Using the AT by employing awareness is the focus of the following section.

6.3 SOT II: Awareness and sensing embodiment

ST: Awareness of what?

> *´it´s just having an awareness of where everything is…´*

[56] See Appendix 8 for a photo of Alexander in the 'monkey' position, a partial squat with flexing hips, knees and ankles. A position of mechanical advantage.

All participants spoke of various aspects of these themes and awareness was used in differing ways, depending what the subject of it was. Sometimes the awareness stemmed more from the physical realm and sometimes more from the cognitive-psychological-emotional realm.

Upon hearing her baby crying Annie says to herself:

> *´I have a pair of feet on the ground and I have my crown here and there is me in between … yes, I will deal with your problem in a second -´* (57)

She is aware of both her baby and herself in this moment. Her self-awareness has three facets: the top of her head, her feet on the ground, and herself ´in between´. Annie appears to be using her physical awareness to not only maintain a consciously embodied connection to herself (and foster it) but also to not rush to her baby. She seems to be ´staying with herself´ not ´losing herself´ - states which are of significance in the following narrative. She has good intentions towards her baby but control over her reactions:

> *´I know I am always doing things in the right direction to get him fed, I don´t let myself get triggered by that… you know what it is and he will get it in a second, just wait a second… while I get my feeding pillows sorted…´* (55)

Annie is looking after herself, creating the right environment before breastfeeding. She is not reacting to deal with her baby´s needs without first considering her own needs. It seems almost as if she is observing herself from a distance when she speaks in the second person: *you know what it is and he will get it in a second.* She contrasts her present experience to her previous postpartum which was marked by loss of psychological well-being:

> *´more awareness of what´s triggering when - and being able to do something about it rather than just stumble through it… which I think is what I was doing previously…´* (10).

Understanding *what´s triggering when* via awareness seems the empowering instance for Annie and the source of her sense of agency. It also seems to be part of her learning process initiated by her AT training.[57] She is not losing her sense of agency by unconsciously reacting to the crying.

Isa puzzles that, upon becoming a mother, she intially lost something:

> *´…it´s funny… because you´ve suddenly got this…baby […] as soon as she cries: oh, quick! oh-oh! And everything just goes completely out of the*

[57] Annie trained to become a teacher before having her present baby.

> *window- and I was totally single-minded for a good few weeks, [...] and I do think that was not looking after myself, that was just- sort of instinctual, really…[Researcher: reacting?] Yeah, reacting…´*(59)

What went *completely out of the window*? It seems to have been her AT knowledge and with it, her ability to be aware and consciously direct her activities. She equates this with being *single-minded* (having only ´one´ mind): narrow and fixated towards tending to her child with little regard for herself. She calls not looking after herself *instinctual*, which seems to mean unconscious behaviour. However, she ´knew what she was doing´:

> *´I was very aware of my use… being… awful [laughter] at least, I suppose it was a good thing - at least I was aware of it…´* (59)

Asked what *awful use* means Isa answers: *´well, that sort of reacting-without-the-thought-of-anything, just reacting and also… umm… collapsing*.' With this description, Isa includes the psycho-physical in her concept of *use*; the united mind-body and sensing the quality of her awareness and embodiment. *Collapsing* she registers an unfavourable *use* while reacting.

> *´I suppose the awareness that that was happening, […] I´m not sure, but I did have this awareness… so that I could lie down, for instance, do something that might help…´* (69)

With a corner of her mind, Isa observes that her *use* was *awful*. This enabled her to make decisions, for example, to work on herself with the AT in semi-supine. That sounds as if she had a benchmark in her memory: she knew her *use* could be better and that she could employ her AT skills to change her self-management. This is an aspect of her sense of agency. On a more psychological level, Phil uses awareness to notice how her thoughts are, describing them as *´very restrictive for my emotional environment´* (25) and describing her mind as *´…really tight so* [the AT helps] *the releasing of my mind by allowing my thoughts to be a bit freer, more flowing...* (27)

Phil gives an example of what this means in her motherhood:

> *´if I´m rocking her to sleep and if one day she goes down, then she stays asleep and it´s all great and then the next day I do exactly the same thing and she just won´t go to sleep I get incredibly frustrated as I´m like, [exaggerated, dogged voice]* ***I´m doing the same thing I did yesterday and I want you to respond in exactly the same way as you did yesterday***[58] *and I guess the Technique just helps notice that pattern of*

[58] She pointed out these thoughts were in her mind and not out to her baby.

> *thought, all the same stuff like, when I was talking about being demanding, those ´tight thoughts´…* (79)

Phil is aware of her expectations in this vivid passage and speaks of how the Technique helps relieve some of her *tight thoughts.* This happens through awareness and has similarities to Isa knowing that her *use* is *awful* enables her to do something. The women are noticing what they are noticing.

ST: Discomfort, pain and awareness

> *´if I didn´t have the Technique, I would just feed any old how and just be uncomfortable…´*

Only two of the eight participants had no physical pain issues after birthing; one of these (Alice) was excluded from the analysis because she had left the UK. Mel, although she had no physical injuries from birth says, *´you do feel like your body has been like, shifted out of place in some kind of way´* (20), saying:

> *´I´m 11 months down the line and now getting back to feeling a little bit like everything is in the right place again…´* (22)

At the time of the interview, she was aware of a subtle level of something feeling restored. This may also be a felt sense as described by Gendlin (Ikemi, 2005). This contrasts with the physical birthing injuries experienced by the other mothers in the study: two C-sections, a pelvic musculo-skeletal injury, a second-grade tear, muscle damage due to a compound presentation, and an episiotomy during a ventouse assisted birth.

Marie spoke of recovering from her C-section after birthing and using the AT *directions ´particularly for getting in and out of bed in hospital: that was one of the hardest things´* (19) and turning over in bed (21). Other areas where she used the AT were climbing steps, picking up her baby and trying to use ´good lifting practices´ to deal with pain in her thumbs and first finger (19):

> *´it´s an ongoing process, but it has definitely helped and I would say, to definately avoid pain with the problem I was having with my thumbs [59], I would say that completely resolved that…´* (29)

[59] De Quervain syndrome

Again a learning process is implied, and Marie often spoke of *work in progress* during her interview. With *´good lifting practices´* Marie means directing before picking her baby up (19).

´I come back to myself…´

Three women started taking AT lessons because of chronic BP, Jennie was one of them. She had no pain issues with feeding her youngest infant saying it is enjoyable, she is relaxed and without any pain or tension (85). Additionally,

> *´…as soon as I get the slightest beginnings of back pain coming, then I´m, you know, I know exactly where that is coming from and I can kind of stop it in its tracks.´* (93)

Jennie acts on the first signs of developing BP and can decisively hinder it worsening. She has self-knowledge about the source of the pain and self-agency, being able to intentionally part with BP,

> *´…even without doing semi-supine position- it can go just in a few days with just having that awareness: hang on, I´m doing that kind of ´stressful end-gaining´, you know, that sort of stressful… body response which probably caused the back pain in the first place.´* (64)

With *stressful end-gaining* Jennie means *´being fast, being tense´* (66) which seems to indicate that she knows her BP does not stem from a physical issue. Her understanding has psycho-physical undertones. The researcher asked what she does when she catches herself in this mode: *´I don´t think I actually do anything it´s just being aware of it is enough… and that means I come back to myself…´* (70)

This raises the question of where she was before she ´comes back to herself´ and is similar to Mel´s *´just do semi-supine and you´re like, back again´* (p.154). Isa reveals what *coming back to oneself* [60] means for her, she was also someone who started the AT due to BP:

> I:*´So, just being able to come back to myself and… stay grounded… you know, and aware of the bigger picture, you know, my surroundings and everything*…(111)
>
> Researcher*: so, if you say ´to come back to myself´ it sounds like you were not with your self - so where are you, if you are not with yourself´? [Laughter, pause]*

[60] See also Annie (p.169) ´staying with herself´.

I: *Well, the extreme of that is, I suppose, on a completely different planet, I suppose… [laughter]*

R: *Without yourself?*

I: *I think it is totally easy to leave your body behind…[R: okay…] I really think so- well, at least I find it very easy and then you can get mixed up in thoughts and… emotions… and without any support because your poor body is just forgotten, and it´s actually quite a supportive vessel to live in and if you make use of that, then it makes all the rest so much easier…´* (115)

In sense-making of what *coming back to herself* means, Isa emphasises how important being in contact and sensing her physical self is for being her whole self. Being in the world is then *easier* even though she seems to speak from the distance of the second person. Being *aware of the bigger picture* has visual connotations (using her eyes) and she also mentions her surroundings, presumably primarily visually perceived. To be aware of *coming back to oneself*, there has to be awareness that one is indeed ´back´.

Fiona speaks of using awareness in connection with pain and discomfort more generally when she says:

´…but then, the moment I notice like, something is amiss, I just won´t have it! [chuckles] I mean, the moment I get even the slightest niggle… I´m: nope, not having that! […] I´m just so intolerant generally to not feeling good, I´m like: no, okay- I´m going to sort this out. So from that perspective, [AT] is always there because I just have zero tolerance for physical discomfort…´(68)

Fiona seems to be subtly self-monitoring: if something is *amiss,* she is *generally not feeling good,* or she has a minor complaint from her back that leads her to take action to *sort it out* and improve how she feels. She conveys an animated sense of self-agency and being responsible for herself to cultivate her well-being, and her AT skills are *always there*.

Phil, who had a C-section, says that:

´I guess movement was very limited… so… having a sense of… where my… movable joints were, to get me to different pos- to kind of… bend down, I mean, yeah, to move at all really, meant just to bend down- any movement was just so… painful, that it was essential to have free ankle, knee, hip joints available so… I´d say that was really helpful…´

It was not only being physically aware of where her leg joints are that helped Phil in the painful healing phase after the C-section it was *having them available.* This implies conscious

contact to her legs and also consciously being flexible from these joints. She expresses the difference between being in this mode or being less aware in a sentence about breastfeeding:

> *´I think if I didn´t have the Technique, I would just feed any old how and just be uncomfortable.´* (67)

There is a lot of what the AT means to Phil in this short sentence: she ´has´ something: her AT skills. She thinks without those skills she would feed without thinking how. She imagines such a ´non-aware activity´ would create discomfort. Dealing with discomfort during typical postpartum activities like carrying and feeding were central themes of this study and all the participants had rich narratives to share on these subjects which are considered in the next section.

ST: Crunched and hunched; breastfeeding

Asked what *looking after herself* with AT means Fiona listed the practical side of using the AT in the postpartum: lifting and bending safely, holding, getting a baby in and out of a cot,

> *'… without … doing your back in […] and then, you know, breastfeeding, och! massive! Being able to breastfeed, comfortably, I mean, breastfeeding is tough…'* [15]

The immediacy of the physical demands of the postpartum is conveyed; the importance of being able to perform activities without hurting one's back is the value of the AT for Fiona. Her use of language emphasises how generally valuable she views the AT as a resource, especially in connection with nursing.

Speaking of her experiences of using AT during breastfeeding, Mel was surprised when she started it,

> *´...how much tension there was on my shoulders and my chest area, even having had [AT] lessons, I was just not prepared for how it was to be constantly holding this position and it was really helpful just to be able to, you know, say ´head up, release shoulders´, just bring consciousness to what I was doing and not kind of create - you could easily create a lot more problems in that time...´* (20)

She had tension *on* her shoulders and *on* her chest area and not *in* these areas. Feeding for her is coupled with *holding* a position. This sounds somewhat static and may have been a source of tension. Using her AT *directions*, she avoided becoming tenser. She observes that,

> *´…my shoulders… a lot of the time, kind of wanted to come up to my ears… but then, if I just say ´okay´ [chuckles] ´that isn´t really necessary at the*

> *moment, and you don´t need to be held up towards my ears´, how can I actually find less - … the most space within this … sometimes quite uncomfortable position […] like, there´s always more space you can get in your body, you give yourself a little bit of an… a reminder… to release…´* (30)

Mel engages in a non-judgemental self-dialogue, talking to her shoulders, aware that she is doing something unnecessary with them, inviting release. This passage could equally have been included in the section on habits and is an example of theme overlap. She searches for more *space* through releasing, giving her description and sense of embodiment a three-dimensional quality. I asked Mel how she felt when she finds more space in her body:

> *´ah… more free, more… centred, umm… more whole, more at one with the whole body, umm… I guess… more at ease as well, more relaxed, yeah, and ultimately more ´you´ because when we are- umm… holding onto tension … a lot of the time, it gets in the way of ´us´ [laughs] … being able to… really, umm… to kind of listen to our inner voice… yeah, does that make any sense?´* (32)

The theme of becoming more centred comes up again. Mel is meaning-making in this passage thinking through how her well-being (not distinctly positioned either in the psychological or physical realm) benefits. Intriguingly, having more space means becoming ´more herself´. She seems to have perceived her mind as more separated from her bodily realm. Perhaps she had been living more in her thoughts? She switches personal pronouns towards the end, again as if generalising. Mel often spoke of *us* and *we* which may mean she feels part of a sisterhood of mothers. She seems to be alluding to becoming more congruent, more authentic when letting go of tension. She ends on an uncertain note. Again, this may come from sense-making out loud and symbolising experiences in words about something she has never previously spoken of.

Participants used onomatopoeic words in relation to feeding, sometimes stemming from their own life-world experiences, sometimes relating to what they observed in other women. These words symbolise physical aspects of the postpartum and their meanings are imbued with discomfort and tension. In each sentence, AT knowledge is mentioned as a countermeasure. I have added bold type to emphasize the point. Something that could potentially be called ´structural mindfulness´ comes over in these quotations, the women are using their anatomical knowledge combined with awareness:

Fiona speaks of the head-neck-back relationship, a central aspect of the AT:

> *´…knowing how to look after yourself while breastfeeding, understanding, you know, keeping a good head-neck-back relationship, not ending up* ***twisted and hunched over*** *your baby…´* (15)

Phil describes working on herself with AT *direction*s even if she was not optimally upright*:*

> *´even if I was in a particularly* ***contorted*** *position [during feeding], I was still able to think ´lengthening´, to do the lengthening and widening, even if I was not in an optimal ´sitting bones position´, you know, upright position…* (67)

Her sitting bones symbolise uprightness as they can only be felt in this position but Phil seems skilled enough to use the AT *directions* even when not upright.

Annie says:

> *´I would hate to do that [breastfeeding] without any knowledge of how to sit comfortably…a lot of the women in the postpartum group, specifically, a lot of them said what they were there for… they all mentioned being* ***crunched over*** *[demonstrates] their babies´* (33)

Further examples of this kind of vocabulary: Mel, talking in general about what birthing did to her body sense:

> *´ …just like, to do the basic directions and give awareness to where you´re at… because you know, you come out feeling a little bit* ***scrumpled up****…´* (20)

Isa, talking about going to bed after a day with her baby:

> *´ …sometimes I get into bed and I find myself in the weirdest positions, all…* ***scrunched up****- but at least I can quickly go: that is really uncomfortable. In the past, I´d roll around for ages to find a comfortable position, instead of having to go through all that, I can just take myself to a more comfortable position and let go of some of the tension…´* (104)

All the quotations imply postural discomfort. Learnt AT skills come over as a readily available practical means to reduce tension.

6.4 SOT III: What´s it like to be an 'Alexander mum'?

ST: A sense of agency

> *´I am not self-sacrificing my well-being for everybody else.´*

Moore (2016) states that a sense of agency refers to the feeling of having control over actions and their consequences. Having a sense of agency is not only connected to self-care and using the AT. Fiona experienced a secondary tear after a short, unplanned home birth. She was not weakened in her general sense of agency and almost indignantly says,

> *´…and I got to hospital and they wanted to take me up to the neonatal ward in a* ***wheelchair****! [laughter] I can just walk! I don´t need a wheelchair!´ [laughter]* (35)

While the hospital had the best of intentions, what comes over is the medical model of birthing: a woman after birthing is (naturally) incapacitated and too weak to walk. Fiona could laugh it off but her surprise at being offered a wheelchair resonates. The offer clashed with her sense of agency; the wheelchair seems to represent helplessness which she decisively did not feel. She speaks in the present, although the event happened four months previously, indicating how alive the experience still is in her.

Annie, who trained to become a teacher of the Technique before having her last baby, compares her grown sense of agency during the present postpartum with previous experiences:

> *´I am not self-sacrificing my well-being for everybody else: yes, I´m going to feed you, but I´m going to get myself comfortable first so we can feed without me crippling myself. Whereas that pattern I had before where the children came first, sacrificing my well-being, you know, they´ll get fed and I´ll wait: ´Oh, no! hang on, if I don´t feed myself I will be less capable of looking after my children!´ So… I guess that is an Alexander Technique thing for me: what my body and my brain is telling me that I need.´* (45)

Annie is looking after herself, creating the right environment before breastfeeding. She is not reacting to deal with her baby´s needs without first considering her own needs. She is aware of both her baby and herself in this moment. Annie appears to be using physical awareness to not only maintain a conscious connection to her self (and foster it) but also to not rush to her baby. She seems to be ´staying with herself´ not ´losing herself´. She has good intentions towards her baby but control over her reactions. Her present positive experiences were in contrast to her previous postpartum which was marked by loss of psychological well-being.
Phil talks about maternal tasks, a tension that might have built up, sensing this and being able to do something about it:

> *´…the big thing is, finding little moments afterwards to let go of where you´ve got to, say I´m rocking her to sleep and I´d say that has been the*

> *most helpful thing - emotionally, that was helpful, by like, going: ´oh, ok, can´t be perfect all the time´ […] I can give myself a bit of space, inhibit, release, re-direct, let go of some of that stuff that might have been essential and appropriate at the time but that is no longer appropriate.´* (85)

Phil has self-knowledge that she can be perfectionistic and this also seems to be an aspect of self-agency by being able to decide to *not* strive unconsciously towards perfection *all the time.* She is actively using the AT to release the tension of the day and speaks of the process of doing that: give herself space, inhibiting, releasing and *directing*. Using the AT means active self-care to Phil.

Mel speaks of *us* and *we* seeming to imply that she feels she belongs to a sisterhood when she says,

> *´our whole lives are kind of flipped and everything is new, your whole body is opened up and you really need to take time to nurture yourself and your families, like, the Alexander Technique really does that nurturing…´* (89)

She seems to be acknowledging what birthing means to her and for other women. She may be getting a sense of community and support from feeling she belongs to a sisterhood knowing other women's lives get radically changed, become new. A woman´s *whole body is opened up*, suggests vulnerability. Using the AT during this time means it gives her immaterial sustenance as well as being beneficial to her well-being. Mel makes it clear that the Technique is a resource of personal significance to her:

> *´…if I am ever in trouble, I always use it, if I ever have like, a bad back, or have an aching- or feel ungrounded, you know, I just go to that.´* (9)

Mel *just goes to that* also seems to indicate a sense of agency, a movement within herself, with the word *just* suggesting simplicity. Her confidence in using AT in semi-supine also comes over when she says *´pretty much sorts it out; I've never had a time where it hasn't.´* (11)

Isa speaks of her sense of agency which has developed through becoming able to lead a normal life, free of BP:

> *´…so I had chronic back pain for a long time- umm…yeah, so it means, you know, I can live and move freely [now] so that changed my life, it meant that I could have children, I thought I wouldn´t be able to have children when I started the Alexander Technique… so apart from that practical physical side of it, it… changed just the way I am in the world… I suppose*

> *I can be much more present and aware… of myself and also of other people, I think, umm… which is nice…´ [chuckles]* (15)

The meaning of having learnt AT to Isa´s life is huge: it changed the way she is in the world which seems to also touch her identity. She moved from being a chronic BP sufferer (with reduced agency to being BP free (with increased agency). She reported needing help with everyday tasks while she had BP, for example, getting in and out of the bath. She thought she would not be able to have children and is now a mother. Her ability to relate to others has grown and she laughs at the end of the passage possibly at her self and the under-exaggeration that these changes are *nice.*

Fiona seems to express her sense of agency through her flexibility and not being fixed:

> *´I´m just happy to go with whatever - if I have to go out, she has to come out with me… usually, she´s fine with that, you know, like, I haven´t limited my life because I´ve got a baby, umm… and I mean, it´s kind of annoying sometimes… [chuckles] because I am always the one who is working around other parent´s nap times and I´m: if we all had these nap times we would never see each other! [laughter]´* (52)

Fiona has not limited her life because she has a baby; she seems to be implying that other mothers do. Her flexibility has a sense of freedom, her baby is usually equally flexible. There is an uncomplicated feeling to this arrangement. Fiona also seems to be making a statement about a Western concept of motherhood. What shines through is the concept: *having a baby limits your life.* Her comments about other mothers´ inflexibility seem infused with humour and understanding and possibly indicates a kind of solidarity with the sisterhood (akin to Mel) made up of other other postpartum women she knows. She also seems to be alluding to unaware, habitual behaviour and subtly sharing her defiance of social norms. Perhaps similar to her attitude to co-sleeping or rejecting a wheel chair upon arrival at hospital after her unplanned home birth.

ST: Carrying the baby

> *'knowing how to have a baby on you'*

All participants had experience of using a carrier or a sling and speak of thinking things through to self-care for their backs during this activity. In passages connected with this theme, the functional-anatomical aspects of using AT comes to the fore. Possibly, for this reason, these passages are descriptive, retrospective and technical, as the following quote from Phil shows:

> *'...it sits on top of the iliac crest and umm… I find that incredibly helpful for starters because the weight, the load, goes through your weight-bearing lumbar anyway… like, that's weight-bearing anyway…and then, I hold her quite high up, I guess and fairly tight and close to me so it's not like the weight is falling down -'* (99)

Phil is reflecting how using her carrier works best and she is drawing on anatomical knowledge. The baby becomes a weight, only once referred to as *her*. The relationship with her infant is in the background. Fiona specifically mentions central elements of the AT; the baby almost seems to become an object when she says…

> *'knowing how to… have a baby on you and still keep your head-neck-back-relationship and notice what's going on there helps…'* (49)

As our clothes become part of us while we wear them, Fiona seems to be saying that her baby becomes part of her while she looks after the alignment of her head-neck-back relationship and observes what the baby *on her* does with it. She is wearing her baby. Speaking of her experiences with carriers, she says:

> *'… very quickly got rid of the one-sided one, that was awful, I tried it, like, a few times and I could instantly feel, you know, this is twisting my back but this is really, really not good, not symmetrical…'* (49)

Fiona observes what the baby's weight does to her back and immediately could judge it to be negative – she is using her body sense to monitor how it feels and make a decision to use it or not. She sees avoiding one-sidedness as desirable, which appears to be a value from her AT experience.

Annie shares precisely how she uses AT *direction*s during carrying:

> *'…back-back, staying in my back, baby away from my back…[chuckles] making the sling as good as possible, making sure the weight is nicely distributed, making sure that my centre of balance is as good as it can be… umm… mainly back-back is the thing with carrying when he's in a sling…'* (69)

Annie seems to delight at her use of AT jargon repeatedly using the word *back*. The baby appears to become simply *the weight*. She uses a process of self-monitoring while *directing*, here with the sling foregrounded to be made *as good as possible* but using her body sense to judge what *'*good*'* means to look after her back. Phil also spoke of the *direction '*back-back*'* and was asked what that means to her: *'not engaging, not pushing forward'* (61).

Isa bridges the topics of carrying and the relationship to the baby when she says:

> *'I was carrying her [this morning] on my back in the carrier, instead of taking the pram, I suppose with carrying her, there is also that element of making sure she's comfortable and, I suppose I can understand how she can be comfortable more- umm… because of the Alexander Technique…'* (95)

The baby is someone whose mother almost tenderly wants to see she is comfortable.I asked Isa how she *makes sure* her baby is comfortable:

> *'…practically having her in a position, you know, where her head is in a comfortable alignment with the rest of her body… in the beginning she couldn't hold her head herself, it was my responsibility- … and it [the AT] just instils confidence in that, and now, when I'm carrying her, especially when I want her to sleep, I think… I am very aware of my… state, my… use, umm… affecting her…and that can completely change how comfortable she is …'* (97)

Isa is considering her infant's head-neck-back relationship as part of physical maternal care and senses a duty to do it well, feeling equiped and confident to do this through her AT know-how. Isa then considers in detail the topic she brushes at the end of the passage: how she discovered in AT teacher training that the quality of *use* can be mutually influenced by close physical proximity.

> *'… one person's use can have affect on another person, like, for instance, I'm usually quite aware of whether- if I'm clenching my jaw or what I'm doing with my tongue, or my eyes, things like that, when I'm holding her… [pause] just because, I think, if I'm tense in some way, then she can tell, babies pick up on everything, especially babies, it has more impact on them…'* (99)

This passage reveals Isa's experience regarding a subtle level of interaction between people in physical contact. When the baby is in the carrier Isa pays attention to her habitual tension patterns and is aware that her infant may be sensitive to them. She completed the passage with:

> *'I am very aware of my… state, my… use, affecting her …and that can completely change how comfortable she is … […] so for her to fully relax I need to help by, you know, relaxing myself…'* (99)

Possibly, general knowledge assumptions are being touched here: a tense mum makes for an agitated baby, a less tense mother has a calmer baby. The heart in this context being that someone with AT experience can proactively reduce their tension and increase calm. These final passages in the above section straddle the two themes carrying and the relationship to

the baby. The next section focuses on if/how the AT plays a role in the relationship to the baby.

ST: Relationship and presence

'she notices very quickly if you're off somewhere else …'

All participants but one related that the AT plays in to their relationship to their infants. How this is experienced varies widely:

- using an AT principle in infant interactions
- heightened maternal well-being through the AT, postively influencing the relationship
- experiencing oneself as a relaxed and flexible mother
- becoming aware of cognitive habits during interactions with the baby
- having an early close physical contact with the baby and experiencing presence.

Mel says:

> *'I think it [the AT]… plays into our relationship in a way that I try to let her be rather than… always interfering with her? Umm… so having a sense of stopping before by- you know, unless I really have to, for her safety, just trying to kind of guide her along and let her have her own experience…'* (66)

Before answering Mel paused, saying *interesting* twice, before speaking. The questioning intonation may indicate that Mel has possibly never tried to make sense of this before. Mel uses the Alexander principle of inhibition, giving her infant more space, allowing the baby to *have her own experience*. The attitude seems here to be a value and more than just parental behaviour: respecting the autonomy of the child (unless there is danger).

Annie describes how she experiences the mother-infant relationship as imbued by less tension:

> *'I am definitely a different parent for having done the AT [teacher training] … that thing when [previous children were] little and you would get this constant: ‚mummy, mummy, mummy' - and I'd be aahhh! […laughter] It's such a trigger, isn't it? A baby crying at you … I have got to solve it and I don't want him to be upset … and I can see my husband doing that if I have left [the baby] to go to the bathroom before I pick him up and feed him […] and my husband will run up to him and I will pick him up and say,*

> *'he was fine, he's ok…' And I think: my God, this is what I would have been like, I would have been trying to carry the baby with me to the bathroom and… I'd been worrying while I was in the bathroom…'* (57)

Annie is sense-making how she has changed and observes behaviour similar to her previous self-management in her husband. How tense and close (in a limiting way) she used to be comes over. She is describing her previous habitual behaviour. She seems freer now, more in control, less reactive, when her baby cries, which also means a sense of agency: conscious *distance* instead of reactive closeness as a key to feeling well. Both she and her baby benefit from her calm.

Fiona speaks of *'having that kind of real flexibility…'* (52) This stance or attitude gives her a sense of relief and freedom (50):

> *'… they are babies, they are… not going to stick to the same routine every day, are they? They are not going to want to eat at the same times every day, they won't want the same amount every day. … and I see a lot of parents, they waste hours of their time, trying to get their baby to nap at certain times… whereas I literally go with [baby's name] with whatever she wants to do…'* (50)

Having no fixed routine, free of concepts of trying to get a baby to do something at a particular time, having openness and sensitivity to adapting to her baby's needs is an aspect of Fiona's maternal quality of life, it makes things easier: *'I think- I couldn't do it any other way anyway…'* (52). She seems to have a self-management imbued with awareness and not habitual behaviour which she again alludes to having observed in other mothers.

Jennie was the only participant who, when asked if/how the AT plays into her relationship with the baby, asked if the question refers to the postpartum relationship or the relationship during pregnancy:

> *'I think in the sense that the Alexander Technique just encourages you just to be present in the moment and have that more… awareness of your physical body… I think I was probably more… that I had much more of a relationship with [baby's name] in the womb than I did with [another child's name]. […] but I'm sure it must help because of the joy of being present to her…'* (101)

Jennie developed more physical awareness through taking AT lessons while pregnant. For her, that meant she built a relationship with her infant before it was born, which was not her experience during a prior pregnancy. She also speaks of the joy of presence to her baby and speculates that AT has played a role. Phil relates how being aware of *tight thoughts* and

letting them go, using the Technique played into her relationship with her baby, enabling her to be,

> *'less demanding of her, I guess, I'm so demanding on myself… and on others, it sounds ridiculous, doesn't it? To be demanding of a baby… but that's just how my brain works.'* (77)

Being aware of being demanding means Phil can then become less demanding: she is observing and being aware of where she is, what she is thinking and is working on herself at the same time.

Being there - *Dasein*

Before learning the Technique, Isa says she was *'more within myself, and much more closed off and unaware of others around me'* (106). She says she now,

> *'…can be open and aware, and… and responsive to her… I would put that down to doing the [Technique] … she needs a lot of attention, she needs someone who is present with her and you know, she notices very quickly if you're off somewhere else or thinking about something else…'* (106)

Isa is aware of her baby *'*noticing*'* when the mother is not truly present. While this *'*noticing*'* is most probably not conscious, the mother does consciously notice a change in the baby when she, the mother, is not present. Similarly, Mel speaks of singing without really being present and noticing a difference in her child when she *is* present:

> *'she is much more engaged when you are present- and I've noticed that when I feel I'm connected to my body and maybe using some of my Alexander tools as it were, she responds, it feels a good response… kind of thing…' (72)*

The realm of presence seems to go to the heart of being human and being in authentic contact with others (or not).

6.5 Chapter summary

The chapter gave an overview of the participants, the interview circumstances and a table summarising the analysed super-ordinate themes and the sub-themes. How participants made sense of their life-world experiences to answer the research question was the focus of this chapter. The three super-ordinate themes which were identified and analysed were: i) sleep and rest ii) awareness and sensing embodiment and iii) what it's like to be an 'Alexander mother'. Sub-themes of each super-ordinate theme were identified and quotes from

participants and the double hermeneutic (through the researcher's interpretations) that IPA ascribes to were presented. The delineation between themes was not hard-cut and it is acknowledged that the data could have been analysed differently and this IPA is only one way of presenting the findings. The IPA of the interviews shows that by using the AT in various postpartum situations it means that participants have clear things to do to deal with psycho-physical tension and many ways to look after themselves in their postpartum life situation. Their self-management was imbued with an aware sense of agency which manifested in various realms as they applied the Alexander principles. The ability to find creative and flexible self-care approaches by using the AT as they navigated the postpartum was spoken of by participants. Their self-efficacy in using the AT in semi-supine was a striking finding of this study although two participants said they did not use the process as often as they wanted to. Potential reasons for this were identified in the interviews and discussed in this chapter. The psycho-physical nature of the AT was confirmed through the variety of realms from which the participants shared their experiences. The overwhelmingly positive feedback from the postpartum women in this study who used the AT was seemingly only limited by participants' ability to be aware of habits hindering using the method. For example, a habitual sense of maternal duty or not being connected to their needs (perhaps for rest) through habitual busy-ness.

This chapter concludes by giving voice to two study participants, Jennie and Fiona. The quotations show again how challenging it is to describe the AT adequately in words and the range of domains that the Technique can touch:

> Researcher*: '…you're talking about the learning process and the skills that you acquired […] if you wanted to explain those skills to a friend, why it's worth learning the Alexander Technique […] could you explain what those skills are? (120)*
>
> Jennie*: 'What skills? That's really hard, isn't it?'*
>
> R: *'Yes…' [laughter]*
>
> J: *'oh, what are the skills? Umm… what is it? I suppose it's like… I think… a level of mastery over your own body, maybe? And 'mastery' sounds too… kind of forceful [laughs] and 'un-Alexander-y' … I don't know- a deeper experience and understanding of your own body?* (123)

Researcher*: 'is there anything you'd like to add about the Alexander Technique and the postpartum in general that we haven't talked about?'* (64)

Fiona*: 'what have we talked about? I've talked about… ja, breastfeeding, it's a massive help, flexibility and not getting stuck: must do this now, we must do that. Self recovery. I am sure there are more things… [pause] Maybe just being present to enjoy it all?'* (65)

7 DISCUSSION of Study 1

'When you are successful, do less'
Barlow (2002:157)

In the following, the findings from Study 1 are discussed and set in a wider context. The interpretative phenomenological analysis of the semi-structured interviews of Study 1 revealed participants' lived experience of when and how they used the AT in the postpartum. The overarching identified theme is a sense of agency which imbues the participants' narratives of how they looked after themselves with the AT. This is facilitated by their awareness. Potential further research areas are considered.

7.1 A sense of agency regarding sleep and rest

Sleep is an issue straddling psychological and physical domains of health and well-being. The narratives surrounding it in Study 1 interviews showed that participants' and their infants' sleep are intimately intertwined. The priority and women's concern with their (and their baby's) sleep surfaced in the narratives. Two women shared that they are co-sleeping, one explicitly saying that it is the right thing for her to do and expressing her sense of agency as she was aware it is not recommended. Co-sleeping meant she has not experienced sleep deprivation. Lack of sleep, sleep deprivation, and fatigue are issues impacting mothers' well-being as they adapt to the demands of the postpartum (Hunter, Rychnovsky, & Yount, 2009). Multiple research findings have uncovered the relationship between postpartum sleep deprivation, negative mood and mental disorders (Lawson, Murphy, Sloan, et al., 2015). Lambermon et al., (2020), in a review on self-care in the postpartum, note that sleep and rest are important self-care needs with mothers often lacking these. Richter et al., (2019) found that the worst point for sleep disturbance is three months postpartum. In light of this knowledge, supporting good sleep and daily rest time is central to maternal postpartum health and well-being. Researchers cannot reach a consensus on whether there is a risk associated with shared sleeping in all circumstances (Duncan, Young, & Shipstone, 2018). The American Academy of Pediatrics recommends room-sharing without bed-sharing (Moon, Darnall, Feldman-Winter, et al., 2016). Lavallee and Scannell (2017) highlight, mentioning Asia, that in large parts of the world bed-sharing is the recognized norm and point to observable cultural and socio-economic differences with the practice. Blair et al., (2020) suggest that recommendations on bedsharing should consider the mother's preferences, beliefs and knowledge while also acknowledging the known benefits and risks. The distinction between intentional (with a sense of agency) and reactive co-sleeping appears to

be a valid and useful one with reactive co-sleeping characterised by reduced parental satisfaction (Ramos, 2003).

Maternal sleep disruption in the postpartum is well documented, likewise the relationship to fatigue and depression (Thomas & Spieker, 2016). The impact of sleep deprivation, as with pregnancy-related BP, seems to be perceived as a typical maternal experience with little acknowledgement of how difficult it can be. This may be akin to women putting up with BP, having been told by their health carers that it is a normal part of pregnancy and little can be done which was discussed in Ch.3 (Pierce, Homer, Dahlen et al., 2012b). Participants of Study 1 used lying down in semi-supine to do the AT and this process is the subject of the next section.

Using the AT in semi-supine

Findings from this study showed that participants regularly chose to self-care with the AT semi-supine praxis which gave them a sense of rest, relief and recovery when they were tired, anxious or fatigued. Practising the AT led to feeling less tense, thoughts becoming calmer, and semi-supine practice allowing 'a re-set' enabling coping with challenging situations. The importance of this activity for the women's lives was a striking finding of the study. A degree of self-efficacy in using AT skills was identified in the narratives of participants, with two participants reporting they were not doing it as often as they would like to. Bandura (1986:94) describes self-efficacy as,

> *'people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performance. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses.'*

Participants' heightened self-efficacy concerning taking rest and doing semi-supine seems to suggest a potential upward and positive spiral of enhanced well-being. Studies show that self-efficacy is lowered when tired (Rogala et al., 2016; Chau and Giallo, 2015; Lesniowska et al., 2016). Self-care is a certain positive attitude and form of attention towards the self, in respect of any necessary function that is under individual conscious control and is self-initiated (Woodman et al., 2018). Individuals can have high self-efficacy for some areas of their life but low self-efficacy for other aspects (Eller, Lev, Yuan et al., 2018). Self-efficacy is a prerequisite for that which Eller et al., (2018) call behavioural performance of self-care. These authors' paper on the usefulness of the concept of self-care self-efficacy is discussed in Ch.9.

Improvements in subtle states of psycho-physical well-being such as feeling more grounded, more centred, more oneself (greater congruence) were shared as benefits of the semi-supine process. A positive impact on perceived levels of energy was reported too. The *intra*personal facet of congruence is being in touch with one's own experience with the *inter*personal facet being respectfully and transparently giving voice to one's experience to another person, as described by Kolden, Wang, Austin et al., (2018). Doing the AT in semi-supine may have enhanced intrapersonal congruence through quietening down and taking time alone for themselves seems to be an aspect of these mothers' self-care self-efficacy. *Coming to quiet* is also a facet of learning the AT that Woods et al., (2020) suggest is a fundamental aspect of the AT process. Not striving to reach a target but trusting that not interfering can allow positive results is an unfamiliar concept (Woods et al., 2020) but was consistently reported as the means whereby change came into being by study participants. Insights on the role of quiet for awareness and good *use* might be why participants regularly engaged in the semi-supine process. Runquist (2007) notes that a solid grasp of factors that can contribute to and effectively reduce postpartum fatigue eludes researchers and the role the AT could play in constructive daytime rest in light of the findings of this study, warrants investigating.

Using AT skills

Participants' self-efficacy in using AT skills, therefore, meant some control over creating their psycho-physical well-being. Having their AT skills at hand possibly offers a way of enacting their agency to initiate self-care. *Doing* semi-supine, *having* a sense of agency and self-efficacy and *being* self-caring all interface with one another and appear to be interwoven and co-influential. While self-care and semi-supine are behaviours, self-efficacy is a belief, and a sense of agency is an attribute. From the kind of data collected it is not possible to say that one leads to another, but it can be speculated that self-efficacy underpins everything. Doing AT while lying in semi-supine is likely to build and maintain the self-efficacy belief as it provides a positive and self-reinforcing feedback loop through heightened well-being. Self-efficacy is not something that is taught, it arises through enacting a behaviour and experiencing that a behaviour can be positively influential, which Maargolis and Mccabe (2006) call task performance or enactive mastery. This supposition is backed up by Wenham, Atkin, Woodman, et al., (2018) who found that lessons in the AT increased self-efficacy to deal with chronic neck pain (see section 2.10 for details of the ATLAS trial). Self-care self-efficacy is considered in more detail in the integrated discussion of Study 1 and 2 in Ch. 9.

Needs

Women can minimize their own needs, especially for sleep and self-care to keep up with the care of their children (Runquist, 2007). One area that using the AT in the postpartum potentially seems of value to mothers is that it offers the means for prioritising for themselves and self-caring for example, through rest. However, a sense of duty and difficulties prioritising for oneself were aspects of habitual self-management that hindered some Study 1 participants from taking time for the AT and themselves in semi-supine. *Awareness* of what was hampering this aspect of their self-care varied in participants. This may be connected with the amount of AT training someone has had and how well they are in touch with their needs by being truly in touch with themselves. Evidence for this came from a participant (a client) who shared that she only *noticed* how tired she <u>really</u> was as a *result* of her semi-supine praxis. Another participant (a teacher) shared her tussle with herself and her sense of duty, concluding that *although* she has a lot to do… she is tired and is she going to have a rest. Woodman et al.'s, (2018) findings that using the AT heightens self-care and self-efficacy are supported by the findings of the present study. An AT maternal self-care smartphone application seems to offer intriguing potential possibilities to enable women to track time alone to look after themselves with the semi-supine process.

The working conditions of the postpartum and Study 1

The term *working conditions of the postpartum* was introduced in Ch.1 (section 1.31). The first three aspects have been evidenced in the presented data and how the participants used the AT to handle them:

- healing after birthing and adapting to the non-pregnant state
- feeding and carrying the baby, often for many hours a day
- disturbed nights with sleep fragmentation and sleep loss due to infant care and resulting tiredness

The third and fourth aspects of the working conditions were less related to answering the research question and the working conditions themselves were not the focus of this research. However, these conditions are still evident in the data although they have not become themes in their own right and they were not presented in the findings:

- adapting to the new family and partner dynamics (Isa, see excluded material, p.145, Fig 5.1)
- having little time (or energy) to keep up social contacts and take exercise Marie, excluded material:

I think the only thing I would have done more of … I would have love to have done – gone swimming more, if I hadn't have been dealing with the C-section and I've done… gone swimming– umm…[…] and I would have liked to have done some more of that but that's the thing that is very difficult, my husband goes away a lot, so it is not something where I can take time out and go away and do on my own but, if things were different, and I had more babysitting options that is something I would have done… so… umm…(50)

These seem to have been more general aspects that participants talked about and were connected with how the participants responded and their perceived flexibility. They did not become specific and distinct parts of the IPA and no questions on these aspects were posed to the participants during the interviews which was the case with the first three aspects of the working conditions. They nevertheless manifested in the participants' narratives; they were in the data but not in the findings. The quotations from the interviews used in this IPA from the participants were less than 10 % of the collected data corpus.[61] There is potential for further IPAs with the data collected in Study 1, for example, where all the working conditions as suggested in this thesis could be explored.

7.2 The Alexander Technique and mindfulness

Some of the outcomes women reported of using the AT while lying in semi-supine appear comparable with mindfulness, a meditation practise that cultivates present moment awareness (Ludwig & Kabat-Zinn, 2008). Marx and Marx (2012) describe mindfulness as being a way to slow down, become more present and aware of how you are doing things while reducing busyness. This means being able to observe onself which Marx and Marx (2012) suggest involves the experience of one part of the self (the observer) standing in a particular relation to the rest of the self. This observer, these authors continue, is not detached but creates a space between the observer and what is observed. Much of what participants from this study say seem to relate to this description and also seem to be an aspect of the benefits but the AT appears to go beyond mindfulness. The AT includes and integrates addressing and modifying harmful psycho-physical habits during everyday living using inhibition and *direction*; this process is not an aspect of mindfulness. Dimon (15.6.2020, webinar) sees the AT as an educational model to cultivate mindfulness in activity pointing out that meditative practices do not integrate bodily awareness as the AT does.

[61] 4711 words in the IPA, the data corpus is 61,558 words

Awareness

The substrate of the participants' agency and their decisions to use the AT for their self-care is awareness of various aspects of the quality of their self-management. Their awareness is psycho-physical and this is why calling the AT somatic or bodywork (or movement therapy), as is sometimes the case, is misleading.[62] Participants' awareness which they used to decide to apply the AT ranged from oncoming BP, of *tight thoughts*, of the habit of tensing shoulders during breastfeeding, of a need for rest conflicting with a sense of duty, of end-gaining, structural-anatomical awareness, general self-awareness of the quality of their *use* or even awareness of '*awful use*' (Isa, p. 162). Becoming aware of one's habitual *use* lies at the centre of the AT (Alexander, 1932) and, with time and experience, this becomes part of self-knowledge. An example of such self-knowledge is, for example, understanding *'what's triggering when'* as one participant shared. Self-understanding in clients' processes is thought to play a key role in many therapeutic approaches (Fisher, Rafaeli, Bar-Kalifa et al., 2020) and Woods et al., (2020) note that although the AT is educational it can have therapeutic effects. Noticing what kind of thoughts one is having and being able to halt negative thoughts also plays a role in cognitive-behavioural therapy, CBT (Longmore & Worrell, 2007). Halting negative and judgemental thoughts may open space for a more gentle attitude towards oneself marked with growing self-compassion. Two participants (Phil and Annie) seemed to be talking about such a process. This aspect in the AT context includes a sense of agency, for example, by not immediately reacting to the baby crying but first consciously organising oneself and self-caring - as some participants reported.

Awareness and attention

The three steps in the subtle chain of applying the AT could be identified in this study as a) awareness of some facets of one's self-management, b) a conscious decision, c) applying inhibition and *direction*. The process has a sense of agency and seems to impart a sense of control. The outcomes are subtle improvements in the quality of participants' self-management and functioning accompanied indirectly by some features of heightened well-being. Frank Pierce Jones (1997:174) attempts to define awareness:

[62] For example, ScienceDirect: *The Alexander Technique: an overview*. Webpage accessed on 11.2.2021: https://www.sciencedirect.com/topics/medicine-and-dentistry/alexander-technique

> *'To start out with a tentative definition, awareness is knowledge of what is going on while it is happening - of what you are doing while you are doing it. It is a generalized alertness to present events.'*

The word *generalized* in the above quote appears particularly salient in light of the range of subjects participants reported their awareness came from. The focus of AT-training is on *not* micromanaging the details of coordination, the practical-theory of the AT postulates that *non-doing* attention and intention (*directing*) on certain areas (the head-neck-back region plays a central role), can trigger benefits throughout the neuromuscular system (Cacciatore et al., 2020).

Shusterman (2009) distinguishes four levels of awareness that flow into one another. First, unconscious awareness during sleep, adjusting a pillow at night, for example. Second, conscious perception without explicit awareness; for example, night-time breastfeeding while half asleep. Third, conscious awareness *with* explicit perception; the baby has been fed but is still agitated, therefore a decision and further action are needed. Fourth, conscious awareness with explicit perception; a person undertakes an action and is aware of the way it is done. The mother breastfeeds and uses *directions* while feeding and senses in the process releasing unnecessary tension in her shoulders. This is the type of awareness that proponents of the AT call the 'means-whereby' (Tarr, 2011). It is based on the idea of being receptive, non-judgemental, calm but alert (Woods et al., 2020). This seems similar to the type of awareness that the right hemisphere is specialised in that McGilchrist (2011) suggests: a broad sustained awareness, receptive to the whole picture. Alexander calls this awareness of *use* in an activity sensory appreciation (Alexander 1932). Carrington (1994:136) notes:

> *'The cultivation of awareness is absolutely bound up with non-doing. It's much more difficult to be reliably aware when you're busily engaged in doing something. If you really want to listen or to see, you really need to be quiet and calm and still. And so if you really want to be aware of the functioning in yourself, you need calmness and quietness and stillness to develop the awareness. You don't get the awareness from sudden flashes. It's something that is built up over periods of time.'*

Attention and awareness are related concepts and both have a number of different levels (Robinson, 2017). F.P. Jones (1997) contrasts awareness as a general unfocused condition with a person wide awake and alert without being concentrated on anything in particular… to attention as a state where a focus on some aspect of the field is at hand. He goes on to describe attention as usually described as directed outwards or inwards (perception or proprioception) but points out that there is no necessity for making such a distinction. In

support of this, the women in this study described practising the AT in semi-supine and including *spatial* awareness (being aware of the back of the room or the ceiling) or weight commitment to the ground (and consciously perceiving it) alongside an awareness of psycho-physical changes occurring within themselves. F.P. Jones (1997) calls this a unified field of awareness. Referring to the idea of a unified field of awareness, Nichols, (in Rootberg, 2018:145) speaking of the teaching situation, says *'Noticing me or noticing them, it does not seem to require a shift of attention. You just know.'* The evidence from this study lends support for the suggestion that using the AT means cultivating awareness in both realms. Grossman (2011:1134), collecting quotes from renowned mindfulness meditation teachers summarises mindfulness as,

> *'a deliberate, open-minded awareness of moment-to-moment perceptible experience that ordinarily requires gradual refinement by means of systematic practice; is characterized by a nondiscursive, nonanalytic investigation of ongoing experience; […] it is markedly different from everyday modes of awareness.'*

Awareness and consciousness

Guillot (2017) differentiates levels of awareness suggesting that a demanding understanding of inner awareness means that a person is not just aware of oneself in experience but aware of being *the owner* of that experience; the subject itself figures. Furthermore, an *epistemic fact* means subjects are aware *of* their experiences; and a *phenomenological fact*, namely that this awareness is experiential, and registers as a certain 'way it feels' to the subject. The latter point is of relevance because study participants seem to have benchmarks which they relate to while monitoring their experiences. '*Awful use'* (Isa's term) can only become an aware experience if one knows how *good use* feels. Slipping into dutiful habitual *use* can only be observed if a comparison is available of how non-habitual *use* feels (Annie). A *'sense of whole'* can only be felt if it feels different to how it is when someone does not feel whole (Mel). Alexander (1932:64-65) suggests along these lines when he writes (in non-gender neutral language):

> *'By this procedure a gradual improvement will be brought about in the pupil's sensory appreciation, so that he will become more and more aware of faults in his habitual manner of using himself; correspondingly, as with this increasing awareness the manner of his use of himself improves, his sensory appreciation will further improve, and in time constitute a standard within the self by means of which he will become increasingly aware of the faults and of improvement, not only in the manner of his use but also in the standard of his functioning generally.'*

Guillot (2016) makes a conceptual distinction between interdependent facets of phenomenal awareness; *what* it is like for someone to have an experience (the qualitative aspect) and what *it is like for the person* to have it (the subjective character). To use Fiona's example (p. 157): doing semi-supine in hospital (the qualitative experience) which enabled her to deal with it all (the subjective character). Guillot emphasises that the difference between these two dimensions are in reality inseparable. Vaneechoutte (2000) suggests that what we call awareness is an end-stage experience arising from the filtering and processing of the myriad of experiences occurring in our bodies and brains. An example: *un*aware muscular proprioceptive experiences involving continual monitoring of the elongation of muscles to enable continuous muscular correction of bodily equilibrium. Vaneechoutte (2000) points out that usually, none of this experience reaches awareness. AT training possibly changes the proprioceptive threshold in this realm enabling people to consciously monitor such a process and, for example, modify unnecessary muscular tension before pain arises. As Fiona shared:

> *´…the moment I notice like, something is amiss, I just won´t have it! […] the moment I get even the slightest niggle… I´m: nope, not having that!'*

Vaneechoutte (2000) argues that consciousness is a recently evolved and specific form of aware experience, suggesting that consciousness is the ability enabled by language to consider experiences and defining consciousness as 'reflexive awareness'. This means an experience made possible by language enabling us to be distant from the current aware experience; to observe it as if we were a third person looking at ourselves. However, there are human experiences, some in the proprioceptive realm, that may be difficult to represent in language. It was notable that participants frequently struggled to find words that adequately symbolised their experiences. Jones and Glover (2014) suggest that discourses surrounding touch are lacking; other realms (such as the kinaesthetic-proprioceptive) possibly remain underarticulated in the absence of relevant discourses to draw on. This may have to do with the differing types of attention (and resulting experience) that the left and right hemispheres of our bipartite brain gives us and that we live in a society that prioritises left-brain thinking. McGilchrist's (2011) concepts on this subject are considered in more detail in the integrated discussion of Study 1 and 2 in Ch.9.

Reflection-in-action

Yanow & Tsoukas (2009) suggests there is a difference between reflecting-*on*-action and reflecting-*in*-action. Mel is aware *while* feeding that she is bringing her shoulders up to her ears and that *'that isn´t really necessary at the moment…'* suggesting she is reflecting *in*

action. This is similar to Fiona noticing the *'slightest niggle'*. Yanov and Tsoukas (2009) admit the border is difficult to distinguish. Tarr (2011) describes the AT effecting change by bringing unconscious (unaware) habit to conscious critical reflection so that it can be worked on. Repeatedly, during a lesson, habitual *use* is located as within an individual; it comes into awareness: *I am doing this.* The experience of modified *use*, leading to a different experience is likewise located consciously within the person during an AT lesson. Ownership of the quality of *use* is established and reinforced in this way and is a central part of the AT learning process. Often a mirror is used during teaching to confirm these changes via the visual system which goes back to Alexander's use of mirrors during his self-research while making his discoveries (Alexander, 1923). This was outlined in Ch.2 and an example of using a mirror during a lesson is given on in the Reflexive Box No. II, p.44. This is a gradual, sometimes challenging process requiring time and attention (Woods et al., 2020). Developing reflection in action seems to be central to applying the AT and the difficulties associated with the process are alluded to in Alexander's aphorism: *'The things that don't exist are the most difficult to get rid of'* (Alexander, 1969:4). However, the question of what consciousness *is*, (the hard problem, Chalmers, 1995) remains; how is it that we experience experience and also recognize it in a certain way? Grossberg (2017) sets out to answer the question which is outside the scope of this thesis.

7.3 Being an 'Alexander mother'

The Alexander mothers in this study have a sense of agency; they have things to do (or *not* do) that they discern via their awareness to look after themselves and nurture their well-being. These things are connected to registering the quality of their self-management and their contact to themselves. This ranges from a knowledge of how to sit comfortably, without tension, to not putting their infants' needs habitually before theirs. Whereas Lambermon et al., (2020) report that mothers tend to ignore their universal self-care needs to respond to their babies needs, the findings from this study seem contrary. Taking time for themselves for doing AT in semi-supine (which the AT community also calls *constructive* or *active rest*[63]) is important to participants and this activity was so strikingly identified in Study 1 as a hallmark of 'Alexander mums', that it became the centre of Study 2, which is the subject of the next chapter. Likewise, the topic of rest in Lambermon (2020), reviewing 29 studies on self-care in the early postpartum, appears only fleetingly. Rest in semi-supine played a central role in the lives of these mothers. Mothers are more likely than fathers to express a lack of

[63] https://alexandertechnique.com/constructiverest/ accessed on 26.1.2021

time to spend on themselves (Nomaguchi, Milkie, & Bianchi, 2005). While two participants of this study shared that they did not do semi-supine as often as they'd like to, it would be interesting to explore with research if Alexander mums differ from the general maternal population regarding how easy it is for them to take time for themselves. Time for oneself was also identified as a central issue in Study 2 findings.

Parfitt & Ayers, (2012) note how many factors affect the parent-baby relationship but name sensitivity to the infant's state as being of special importance. Superficially, there seemed to be *variety* in how the mothers in this study described the AT's influence on the mother-baby relationship: allowing the baby to have its own experience, being a less reactive parent, being free of concepts (going with what the baby signals) and being present in the moment with the baby. There is, though, a common denominator in these examples. The Alexander mums are not *interfering* with their baby's lives by imposing their ideas of what they think should be happening. This then seems to include sensitivity to the baby and its state and could be called *non-doing* in action. This behaviour also seems to shine through with the participant who detailed being aware of her tension and consciously letting that go to benefit her baby and also caring for her infant's HNB-relationship. Another participant felt she had built up a relationship to her baby during pregnancy through taking AT lessons which she had not experienced during her previous pregnancy. This latter example is an interesting contrast to getting to know a baby during pregnancy through 3/4D scans which Wadephul, (2013) explored. Presence and awareness seemed to define the relationship quality of these mothers to their infants. The mother-baby relationship quality was not the focus of this study but it would be interesting if further research explored the role AT can play in bonding through this kind of *non-doing* and the effect this (potentially) has on babies. The importance of forming a satisfactory and intimate early mother-child relationship has been long acknowledged (Parfitt and Ayers, 2012).

On a final note, skill retention seems to be taking place as only one participant in this study was actively engaged in receiving Alexander work. Retention of skills six months after receiving a course of AT lessons in people with idiopathic Parkinson's disease was found by Stallibrass et al., (2005). Wenham et al., (2018) found skill retention after a series of AT lessons at six and twelve months after completing them. Present findings also highlight the learning process that proponents of the AT ascribe to (Alexander, 1932/2018; Cacciatore et al., 2020; Woods et al., 2020) with all participants of this study sharing that they see using the AT as an ongoing process.

The psycho-physical realm

Participants also spoke about being aware of *coming back to themselves* and feeling more a sense of their whole selves having applied the AT. They also reported feeling revived, less rushed with less *racing*, feeling more at ease and more relaxed following semi-supine practice. These findings are notable as they do not reside clearly either in the psychological or the physical realm and further confirm the holistic nature of the AT. The findings also strengthen the argument for the complex multifaceted nature of well-being that Wadephul et al., (2020) propose. Armitage (2008) found evidence that people learning the AT increased their awareness and reported letting go of undesirable inter- and intrapersonal patterns which likewise seems to straddle the psycho-physical realm. Armitage (2008) also reported that self-awareness helped people learning the AT to be *more comfortable* in *being themselves* which included feelings, beliefs, values as well as bodily comfort. Experiencing a *re-set,* as one participant shared the AT gives her, seems a phrase describing the overarching effect semi-supine praxis can deliver, again neither clearly a psychological nor physical reset. What *coming back to oneself* really means and why this is valuable deserves deeper understanding. Jones and Glover (2014) relate that pupils of the AT spoke about improving their view of themselves through taking lessons. An example of this was finding space for oneself without feeling selfish. This seems to relate to what some Study 1 participants were putting into practice.

Sensing embodiment

The participants of Study 1 used the AT in the physical realm to avoid discomfort and pain and proactively deal with such if it arose. This is an aspect of their sense of agency. Both participants who had had a CS reported using the AT consciously in their movements as the operation means that nearly every movement afterwards is painful. Reducing symptoms of mother's thumb by being aware of holding habits and modifying them and counteracting oncoming BP were other issues. The AT therefore takes a markedly different approach to standard physiotherapy to address such physical issues where training, exercise and 'strengthening muscles' are foregrounded as treatment. This was critically discussed in Ch.3 (section 3.7). The value of the AT for general back care comes from the most robust studies on the benefits of the AT through two large RCTs: Little et al., (2008) and MacPherson et al., (2015). These studies have been discussed in Ch.2. The vocabulary used by participants in connection with breastfeeding paints a picture of potentially physically and habitually *contorted* mothers who are *hunched* and *crunched* over their babies. Again, a sense of agency is conveyed in that participants could avoid tension-BP by using the AT or reduce it if it had manifested; they could consciously let go of discomfort caused by psycho-physical tension. This highlights that the AT is used in activities of daily life.

One of the hallmarks of being an AT mother that was identified through this study is the anatomical competence and knowledge the mothers possessed to do with using a carrier or sling. This included self-caring for their backs, working on themselves while carrying to avoid tension and being able to perceive whether a carrier was good or not for their backs. This 'structural awareness' includes anatomical knowledge and is an aspect of the AT that demarcates it clearly from associations with mindfulness. While the AT has mindful aspects, understanding where the sub-occipital joint[64] is, for example, and how the whole system benefits by pro-actively reducing (or avoiding) FHP is knowledge unique to the AT. In light of Thompson et al.,'s (2002) longitudinal, population-based, cohort study comprising 1295 women with 92% completing the study with backache rating as unresolved and between 53–45% women experiencing it, there seems a strong case for specifically researching how the AT could contribute to back health and associated well-being benefits in the perinatal period.

[64] The joint at the top of the spine and the base of the skull.

7.4 How does the AT work?

Cacciatore et al., (2020) consider, in general, several possible explanations for the AT's effects and these are considered in the following concerning the topic of tiredness. One suggestion these authors make is that reduced tension in the torso benefits breathing which then down-regulates the sympathetic nervous system, reducing a sense of stress and tiredness. Lying down in semi-supine, inhibiting and *directing* facilitates psycho-physical tension reduction as study participants vividly described. FHP is reduced through the semi-supine process and the issues it can cause may also play a role in the efficacy of the practice. Results suggesting that FHP negatively affects respiration are of special interest (Kim, Kim and Jung, 2013 in Appendix 1). Another proposal Cacciatore et al., (2020) make draws on embodied cognition concepts which emphasize that emotional experience relies on how we interpret muscle tension and physical sensations. Postural patterns to do with calmness, alertness and confidence will facilitate positive emotions. Feeling more upright through releasing tense muscles and then 'lengthening' (see photos in section 2.6 for this effect) as a result of the semi-supine practice could therefore lead to feeling less tired. The same authors also consider the potential influence of the regulation of the adrenal response to stress that the AT could have. Possibly all factors are at work. I suggest a further mechanism of action potentially contributing to beneficial change: through the mindful reorganisation of attention that using the AT initiates in semi-supine there is *less focus* on the sensations of tiredness and accompanying, often negative, thoughts through this attention shift. As the 'wider', less judgmental attention comes mindfully to the fore, a sense of relief from tiredness possibly sets in. Study 1 participants reported changes in thinking (less *messy thoughts*, calmer mentally) and it, therefore, seems feasible to suggest that the semi-supine process promotes a holistic mindful attitude with certain facets of the process playing into feeling less tired. This would mean having a sense of agency and applying the AT indirectly could mitigate feeling less tired. Stallibass et al., (2002) found evidence of the AT helping reduce tiredness.

Hölzel, Lazer, Gard et al., et al., (2011) suggest that mindfulness meditation exerts its effects through attention regulation, body awareness, regulation of emotions and change in perspective on the self and researching common ground with the AT merits some research to understand the process(es). As the perceived impact of AT lessons on pain management found that *reaction* to the pain changed with AT experience (McClean, Brilleman, & Wye, 2015) researching if the reaction to night-time disturbances and tiredness/fatigue in AT-experienced mothers likewise seems a valid call.

7.5 A sense of agency is important to well-being

Fahey and Shenassa's (2013) Perinatal Maternal Health Promotion Model focuses on the development of life skills that promote well-being and meet individual needs to counteract compromised postpartum self-care. These authors see complete perinatal well-being reaching far beyond understanding it as the absence of pathological issues needing medical attention. This position is supported by Wadephul et al., (2020) who suggest that perinatal well-being is a complex multi-dimensional and dynamic construct with subjective whole-person experience. This seems supported by the findings of this study.

Developing skills and using them requires a sense of agency. Hurault, Broc, Crône, et al., (2020) suggest that a Sense of Positive Agency (SoPA) is about personal autonomy and responsibility for our actions while Sense of Negative Agency (SoNA) is about fatalism and existential helplessness. The SoPA represents the level of control over the body, mind, and environment felt by an individual. Conversely, the SoNA represents the lack of control over the body, mind, and environment felt by an individual. The potential for increasing a SoPA regarding self-care is of interest as Lambermon (2020) cite many studies revealing that mothers tend to ignore their universal self-care needs by prioritising their baby's needs. Tapal, Oren, Dar et al., (2017) confirmed that the SoPA measures a concept that is distinct from a general or specific belief in self-efficacy and from a belief of having control over obtaining a desired outcome (locus of control). It would be interesting to explore a large sample of people's SoPA who are familiar with the AT and compare this with people without experience of it.

Sointu (2006) considers the notion of self-responsibility which she suggests has come to constitute a facet of the present-day discourse of maintaining health and preventing illness, with lifestyle choices playing a role. A different point of view stems from Charles Taylor (2018) where the trend of present-day Western individualism is related to the ideal of authenticity; being a full person is linked to developing one's self and seen in this light, a sense of agency is a value. This contrasts with the '*passive, compliant and obedient*' patient in bio-medical encounters which Stacey (1997:205) identifies in an oncological context. Biomedicine has doubtlessly been in an ongoing process of change and modification in recent years, for example, *From Detached Concern to Empathy: Humanizing Medical Practice*, (Halpern, 2006). Sointu (2006) sees CAM practices as allowing the patient-client a more active role in their health care. Goldstein (2003) sees these changes as motivating people to conceptualize their health or illness concerning multiple aspects of life and therefore, more holistically. In this sense, Alexander was ahead of his time with his concepts (Cacciatore et al., 2020; Woods et

al., 2020). The active and informed individual citizen that has been emerging in the health care realm from the grassroots in recent decades may also be an element of wider social, political and cultural basic democracy trends. The MeToo, Black Lives Matter, Democracy Movement in Hong Kong and the Fridays for Future movements being perhaps the most recent manifestations of such developments. People who take lessons in the AT or train to become teachers of the Technique may belong to a demographic group who can be broadly defined as active and informed citizens. Evidence for this is suggested in Eldred et al.s (2015) survey of teachers and clients 91% of people paid privately for their Alexander lessons and AT teachers reported that clients were rarely (56%) or never (41%) referred by a General Practitioner. This, however, also suggests that lower-income socio-demographic groups who cannot afford to pay for lessons are not gaining access to the AT.

7.6 Strengths and limitations of Study 1

Participants spoke freely and extensively on a subject that was of personal interest to them and rich and extensive data was created; this is the (known) first study to explore how women use the AT in the postpartum. Other unpublished studies on this topic may exist. Banoofatemeh et al., (2017) claiming that results from their clinical trial show that the AT can promote mothers' psychological well-being and their pleasure of becoming a mother has already been discussed in Ch.2, section 2.10. Due to the small sample size in the study findings cannot be generalised. Qualitative research studies examine a specific issue or phenomenon in a specific population or group, in a particular context. Generalizability of qualitative research findings is not usually expected (Leung, 2015). The study included women with different levels of prior AT experience which influenced the findings. A study with women who have only taken AT lessons would possibly lead to different findings compared to a study only with women who had been AT teachers for many years with more experience. As the women were also at different stages in the postnatal period (ranging from 4-12 months) this also influenced the findings. Three participants were 4/5 months postpartum and two were 11/12 months postpartum. While it would have been preferable to have mothers at the same stage, this was not feasible within the time constraints of the PhD. The demands made on the mothers at different postpartum stages and their respective working conditions varied and is also a limitation of this study. The responses from participants as to how they use the AT in the postpartum were imbued with positive experiences touching various realms of their lives. Two participants found shared that they did not use the AT in semi-supine as often as they'd like to. The potential reasons for this have been discussed. Participants were women who had chosen to pay for AT lessons and

also chosen to take part in the research, it might therefore be expected that they will report positive experiences. The participants who had trained to become a teacher would hardly have done so if they had found few benefits in the AT. These aspects do not, however, detract from the information gained about whether or not the AT helps women in the postpartum and how they use the method. The participants were skilled and could therefore contribute to understanding what elements of the Technique they used and in what way they were helpful.

7.7 Conclusions from Study 1

A key focus of maternity care is choice and control; women have made it abundantly clear that they want it (NHS, England, Better Births, National Maternity Review 2017; Vogels-Broeke, de Vries, & Nieuwenhuijze, 2021) That said, simply assuring someone of choice, especially in a vulnerable period of life, does not mean a woman can make and take those choices and (then) have (more) control. Maternity choices can be simultaneously promised and then constrained Jomeen (2010). Through learning the AT individuals seemingly become empowered to take greater responsibility for their health and well-being (Woods et al., 2020). Despite calls from maternal health experts to optimize women's health in the year after birthing relatively little research and attention has been given to this phase of the perinatal period (Fahey and Shenassa, 2015). Further research into self-management techniques, such as the AT in the postpartum, is warranted to explore and understand its potential in supporting maternal self-care and well-being and developing a sense of agency. Lambermon et al., (2020) cite recent reports which centre around the concept of *self-reliance* which is in line with a modern definition of health where an individual's ability *to adapt and self-manage is taken into account* (Huber, Green, van der Horst, 2011). This sounds strikingly like outcomes of learning and using the AT. The role that learning the AT could play in the perinatal phase to develop skills to create conditions conducive to restorative sleep and prioritising daytime rest also deserves research attention.

7.8 Chapter summary

The central role of awareness when 'Alexander mothers' use the AT to modify their self-management and how that imparts a sense of agency has been discussed. The resulting benefits to participants' well-being and how participants modified their self-management by using the AT in different situations has been summarized. Evidence for the seemingly multi-faceted holistic nature of well-being has been considered. Possible mechanisms of action for the AT were reviewed. Different states of awareness were considered and the role of calming

the mind with a shift to a mindful, broad, sustained awareness which doing the AT in semi-supine seems to facilitate was explored. The importance of the semi-supine process for the women's lives and the benefits they gained from it has been summarised. This established process from AT lessons was used by the women on their own through skill retention and with a degree of self-efficacy to contribute to their self-care. A hallmark of Alexander mums was additionally their anatomical knowledge, especially concerning the head-neck-back-relationship and caring for it through *directing* in demanding postpartum situations such as carrying and feeding a baby.

The following chapter deals with Study 2, a mixed-methods feasibility study with women who had no prior AT experience. Study 2 grew out of the findings of Study 1. Drawing on the Alexander principles while lying in the semi-supine position ('constructive rest') was at the centre of this small-scale feasibility study.

8 STUDY 2 - A MIXED-METHODS FEASIBILITY STUDY

An online self-care package for postpartum women based on the Alexander Technique

> *'You see, a great deal of what´s written around this work doesn´t help you to apply it. And without application the work doesn´t exist. It´s a life skill in the profoundest sense.'*
>
> Barlow (2002:157)

8.1 Background

A discussion of the theory and practice of the AT was given in Ch 2. The practical usage of the AT is based on learning to inhibit (not react habitually to stimuli) and to *direct* (project thoughts to initiate lengthening in the head-neck-back relationship). This learning process traditionally takes place in one-to-one lessons with an Alexander teacher using both guiding touch and giving feedback on the client's self-management through spoken instruction. Findings from Study 1 (Ch. 6) exploring how women use the AT in the postpartum revealed that participants' psycho-physical well-being benefitted in a variety of ways from using the AT. Lying down in semi-supine ('constructive rest') and applying the AT principles was a practice frequently used by participants. This practice is a standard component of traditional hands-on AT lessons but participants in Study 1 (except one who was in a teacher training class) were using the constructive rest process on their own. At the start of 2020, a plan grew to recruit local mothers and introduce a group of mothers who were *not* experienced in the AT to the method and to the constructive rest procedure in their everyday lives. The original plan at the start of 2020 was a focus group study inviting women to the University where they could have personally met the researcher and she could have worked with them. By February it was clear that due to the SARS Cov-2 pandemic the only way to move forward was to move online.

Study 2 development and the research question

This small scale feasibility study aimed to explore the overall usability and acceptability of an online maternal self-care package based on the AT with the practice of constructive rest (CR)[65] at its centre. **Research question***: In a non-AT experienced target group, what are women's*

[65] CR is the abbreviation for 'doing the AT while lying in semi-supine'

perceptions of the self-care package based on the AT concerning usability, acceptability and the effect of the package on certain aspects of participants' postpartum well-being?

The overall aim of Study 2 was to explore if it is feasible to take the study to a full-scale project. Components of the package were five videos, including an introduction to AT, anatomical information and information on CR. Further input was sent by post and the main intervention involved participants committing to doing CR 14 times for 10-15 minutes throughout a period of time, not necessarily daily. The study content is listed and summarised on p.206. The study had the following feasibility objectives: To asses the appropriateness of the outcome measures, inform the design, assess recruitment and adherence, explore participant views on the acceptability and usability of the package and barriers and facilitators to using it. This means exploring and understanding how the participants act and behave during the study to gain information that would be valuable to have before considering a larger study. (Bowen, Kreuter, Spring et al., 2009) include *appropriateness* as an area of focus for feasibility studies meaning to what extent is the programme judged to be suitable and satisfying to participants.

In Ch. 4, my main philosophical position was outlined as imbued by pragmatism and this paradigm was central to setting up Study 2. The general rationale for the design of this study where personal contact was not possible was that human learning processes can also take place through watching, listening and reinforcing personal experiences; these processes are not reliant on touch, direct feedback and spoken instruction during interaction with an AT teacher [66]. Study 2 also became conceptually coupled with the plan to write *'The Postpartum Handbook: mindful maternal self-care with the Alexander Technique'* which will be based on the findings of this PhD. Practical online input is planned to be part of the handbooks' content. This pragmatic approach to designing Study 2 suggests that multiple paradigms can be used in a mixed-methods study and for the above-mentioned reason led to using this design which had three data collection strands to answer the research question: a Likert-based questionnaire, a free text response in the questionnaire and semi-structured interviews. The interventions in this study were fourfold: via videos, reading a sent document, an audio recording (identical to the sent written instructions guiding through the CR procedure) and the participant's practice of CR for at least two weeks.

[66] Whether online teaching (and learning) of the AT is as valid as hands-on AT work is, as noted, the subject of a discussion taking place within the AT teachers' community as a result of the pandemic (STAT News Vol. 10:6 Sept.2020).

Philosophical assumptions of Study 2

Study 2 incorporates the philosophical knowledge assumptions concerning constructivism, pragmatism and critical realism which have been discussed in Ch. 4. Cresswell and Plano Clark, (2018) suggest that multiple paradigms can be used in a mixed-methods study and that the researcher's paradigms relate to the study design. This was the case in Study 2. Maxwell (2011) advocates searching for a deeper understanding that can come from connecting diverse approaches. He adds (p.11) that *'we need multiple lenses to attain more valid, adequate, in-depth knowledge of the phenomena we study'* as one lens might be inadequate or incomplete.

8.2 Methods

Design

8.2.1 Rationale for the mixed-methods study design

Study 2 applied an approach recommended in mixed-methods research by connecting and integrating the results from different types of data, but giving them equal priority with sequential data collection (Eyles et al., 2015). The qualitative part of Study 2 helped to develop a more complete picture regarding the usability and acceptability of the package and by converging the qualitative and quantitative data the findings of the study were strengthened. Viewing the issue under study from more than one perspective enriches the meaning one perspective would give and is a typical reason for using mixed-methods (Creswell, Klassen, Plano Clark, 2011). The findings from the three data sources were merged informing one another and yielding differentiated answers to the research question (Creswell & Plano Clark, 2018) and are to be found in the discussion of the study at the end of this chapter.

8.2.2 The Likert-based questionnaire

Likert scales are one of the most frequently used psychometric tools in educational and social sciences research (Joshi, Kale, Chandel et al., 2015). They fall within the ordinal level of measurement (Jamieson, 2004), use a 5 or 7-point scale to measure perceptions, motivations, and intentions for respondents to rate the degree to which they agree or disagree with a statement. Responses can be ranked, but the distance between responses is not measurable meaning the difference between 'disagree' or 'totally disagree' cannot be seen as equal (Sullivan & Artino, 2013). Likert-scale questionnaires are often used to measure psychological constructs, (thoughts, attitudes) or information stemming from affective domains (feelings, bodily sensation) or behavioural fields (actions) (Barker et al., 2016).

Bryman (2006) found in an examination of ways in which qualitative and quantitative approaches to research were integrated that 57.3% of articles reviewed using mixed-methods were based on a combination of a survey instrument and qualitative interviewing. Landrum & Garza (2015) suggest that the boundaries between quantitative and qualitative approaches are not clearly defined and that it remains debatable whether a Likert-based questionnaire produces quantitative or qualitative data. That is an aspect of an individual's attitude which can then be measured through it being operationalized (Nemoto and Beglar, 2014). The feasibility nature of this small scale, modest study meant that discerning a distribution indicating the usability, acceptability and whether the package impacted various key issues relating to the working conditions of the postpartum was needed to answer the research question. The view taken here is that the questionnaire collected data that could be measured, compared and used to illustrate a distribution of respondent's attitudes and experiences to the package with descriptive statistics. This is in contrast to the qualitative interview data which had to be coded and could not be used to illustrate a distribution or be presented in a bar chart (Nemoto and Beglar, 2014). These authors go on to recommend using questionnaires in conjunction with other data collection approaches as numerical data cannot provide a complete picture and have inherant limitations. This they suggest allows the researcher to arrive at more defensible conclusions or interpretations. This target was aimed for in Study 2 by using Thematic Analysis and is described in the section after next.

Development of the questionnaire

The nine items in the short questionnaire were rooted in the aims of the research of this thesis to explore how women use the AT in the postpartum. The questionnaire aimed to collect data on participants' experiences with the self-care package and elicit self-reflection of using the package. Therefore, the development of the items was based on the findings of Study 1 and asked participants if the package impacted their postpartum experience, self-care, and whether their CR practice impacted their sense of well-being. Three further items stemming from the findings of Study 1 related to the working conditions of the postpartum: drawing on the principles of the AT while sitting during feeding, carrying the infant, relationship to the baby. Two items at the end of the questionnaire asked for participants' perceptions of the usability and acceptability of the self-care package. Barker et al., (2016) recommend mixing up the direction of the statement to which people respond: some positive and some negative statements to maintain a person's attention while completing the survey and this approach was adopted. Barker et al., (2016) point out that what the key words in an item mean for each individual may remain unclear and that the definition of the constructs is often not (able to

be) operationalised. These authors argue that most psychological constructs are only partially captured when measuring. The items in this study used terms and descriptions such as well-being, postpartum experience and looking after oneself but what the words meant to the participants was not clear. This question of validity (whether the measure measures what it is supposed to measure), could be addressed if a full-scale study were to be done. The questionnaire was used to gain an initial subjective impression of participants' opinions of the listed items in connection with engaging in the study knowing that some of the items were simplifications. With participants' life-situation in mind, effort was invested to create concise statements which were easy to read leading to a questionnaire design that could be completed in a few minutes that was not arduous to understand. Only one issue per item was presented and double-barrelled statements were avoided. The questionnaire was not piloted for face validity or pre-tested in the target group due to the modest scale of the study and time restrictions of the PhD. Results were analysed by entering them into an excel spreadsheet and using the bar chart display setting, and are presented in full in the findings section of this chapter. The following five-level Likert response choice was used, Nemeto (2014) suggests that scales with more than six categories are rarely tenable: Totally disagree / Slightly disagree / Neither agree nor disagree / Slightly agree / Totally agree

Table 8.1 The Likert items in Study 2 questionnaire

My postpartum experience has changed through the online self-care package based on the Alexander Technique
Using constructive rest regularly has not changed my sense of well-being.
The postpartum self-care package means I have changed how I look after myself.
The postpartum self-care package has not changed the way I sit when I feed my baby.
The postpartum self-care package has changed how I carry my baby.
The postpartum self-care package has not changed my relationship to my baby.
The postpartum self-care package was easy to use.
The postpartum online package was not suitable and acceptable to me as a mother in the postpartum.

The open question, the free-text response was:

Do you think anything else has changed? Please share any thoughts in the space provided:

8.2.3 Thematic Analysis

Along with using a questionnaire, semi-structured interviews collected data from participants as did the free-text response part of the questionnaire. The questions posed at the start of the interview were**:** *How did you find the package? Please tell me a bit about your experience with it. Any general thoughts? What did you find easy? What was more difficult?* The questions were constructed to understand more about the study's feasibility. Prompting, and inviting more information took place as appropriate. This data was analysed using Thematic Analysis (TA). TA is used to identify, analyse and report themes within a corpus of data (Braun and Clarke, 2006). It can be used within different theoretical frameworks (it is not bound epistemologically as IPA is) and this makes it a useful and flexible research tool enabling a potentially detailed and complex account of organised qualitative data (Braun and Clarke, 2006; Braun and Clarke, 2016; Braun and Clarke, 2019). The decision to use TA in Study 2 stems from this flexibility. The method offers a way of capturing prevalent and important themes which represent meaning across the two sources of qualitative data of this study. Braun and Clarke (2006) point out that data are not coded in an epistemological vacuum and the themes presented in the findings section belong to a constructionist paradigm. In the context of the postpartum that means the experience that the participants shared are imbued by the society the women live in. The same study conducted in a society where *men and women* equally take on infant care work in the postpartum would potentially produce different results.

8.2.4 The constructive rest intervention

Considering the postpartum context of women's lives played a central role in the design of this study. Bowen, Kreuter, Spring et al., (2009) suggest that feasibility studies should reflect the realities of the community of its intended audience to help determine if the study is truly acceptable. The same authors also suggest that *intervention* means any programme (service, policy, or product) that intends to influence or change people's social, environmental, and organizational conditions as well as their choices, attitudes, beliefs, and behaviours. As the practice of CR rest was the central and most intensive study intervention, this procedure is explored in detail in the next section.

Key principles of constructive rest

Stallibrass (2005:151) reported how many participants practised the AT while lying down in semi-supine as part of skill retention six months after a course of AT lessons as follows.[67] 24

[67] A photo of lying in semi-supine is in Appendix 7, section 10.7.2

people (86%) were still lying down in the semi-supine position and ten people (36%) were practising the AT in this position at least daily. Eight people (29%) mentioned directing while in this position. These authors documented the practical application of skill retention in their trial and comment on the CR procedure as follows giving a physiological rationale for the various steps which are involved:

'The pupil lies with their knees bent and their head (not the neck) supported by books. In this position there is minimal distortion of the curves of the spine compared to lying flat or standing or sitting and the balance of the head is relatively forward on the atlanto-occipital joint. This allows gravity and the effects of inhibiting and directing to encourage the back to lengthen and widen. The discs between the vertebrae, including those of the neck which are freely poised in space because the head is supported on books, are gently teased apart and absorb more fluid (Maroudas, Stockwell, Nachemson et al., 1975). The weight of the arms and legs are supported by the floor or the table such that the large superficial muscles of these limbs that wrap around the neck and back are encouraged to release from their habitual patterns of contraction. Consequential beneficial effects include the likelihood of less constricted respiration and freer movement of the internal organs and the joints.'

The most detailed description of CR practice came from Mel (p.155) and the first part of her narrative aligns with Stalibrass et al.s' above description:

> *´So I use a book under my head, usually, and I lie on the floor, grounded on the floor, hands usually on my tummy and my legs up, my feet grounded on the floor'*

The second part of the passage describes connecting more to the physical side of herself. Mel then starts directing, sending conscious orders for her head to move away from her body, widening her shoulders, releasing her hip joints by thinking her knees to the ceiling and letting go of tension in her hands. This aspect of the AT delineates it from mindfulness meditation.

> *'…then I just notice kind of… where my body is at, where areas of tension are and I just send a kind of wish to the areas that are tense to release: I also think about my head going to the back of the room, my feet spreading out on the ground, my shoulders releasing, my knees going up towards the ceiling, my hands relaxing, it´s just kind of… like a way of navigating around the body.'*

The third part of Mel's passage deals with outcomes:

> *´…and I very much notice that my body gradually, gradually kind of begins to release and then I start to feel more like a ´sense of my whole´, the whole of me? I generally- I find that things then begin to slow down and often I feel how tired I am, when before, it had been kind of my racing through and I´m: ´ah, actually I am- I´m quite tired now´… so I always feel grounded afterwards and I feel [unclear]… kind of centred, I suppose…´*

Further descriptions of CR from Study 1 participants which were included in the guiding instructions (spoken and written) for Study 2 participants were, for example,

> *´…to particularly think of my back ´melting into the floor´ and… just try and… create that bit of… mental space, by - yeah, I suppose by concentrating on my directions… it does allow for sort of ´messy thoughts´ [to stop] that intrude into everyday life when I am at home…´ Marie, p.157*

Both Carey (2015:167-183) and Kleinman and Buckoke, (2013) detail this procedure which can be performed alone but is an established part of AT lessons stemming from Alexander himself (Carey, 2015:167).

8.2.5 Recruitment

A research website [68] for recruitment was set up. A call for participation linking to the research website was launched in June 2020 through the following institutions, their websites and social media platforms (Appendix 7, section 10.7.1). Women potentially interested in joining the study could read information about the study requirements and take their time in deciding if they wished to approach me to express interest in joining the study. The five institutions through which recruitment took place were:

1. The website and Facebook page of the local parenting community is called **The Hull and East Riding Mumblers.** Mumbler is a franchise with groups all over the UK.

2. The **Society of Teachers of the Alexander Technique** (STAT). Recruitment via an email to members of STAT. This recruitment mail could be forwarded by teachers to friends, family and acquaintances without previous AT experience who might be interested in joining the study.

3. **Mumsnet**: a UK-based internet forum for discussion between parents of children and teenagers.

[68] https://www.speek.de/de/research/22-allgemein/129-the-alexander-technique-in-the-postpartum

4. **Net Mums**: a website for parents operating as a network of local sites, and offering information about parenting with a web forum.

5. **The University of Hull**, internally, via an email to postgraduate researchers and staff members to be forwarded to friends, family and acquaintances who might be interested in joining the study.

The recruitment phone call

Women expressed interest in joining the study by sending an email to the researcher's University address in the recruitment advertisements and on the recruitment website. They shared their telephone number in this email and the researcher aimed to respond within 24 hours. The first question in the call was to ask if it was convenient to talk now or later. Enquiring if a woman had already heard of the AT was an uncomplicated door-opener during this first personal contact. The telephone call allowed women to ask questions about the study, and for the researcher to be sure that the person understood what was required if she joined. It was made clear that there was no pressure to complete 14 days of constructive rest consecutively and that a participant could leave the study at any time without having to explain why. Data were collected during this phone call: age, number of children, partnership, employment, and if they had had prior experience with the AT. Towards the end of this first contact, it was gently asked of potential participants if there were any significant current physical or mental health issues. It was important to understand if any such issues might impact their ability to take part in the study: A woman with acute BP issues would, for example, have to be excluded as she would not be able to lie down without pain to practice constructive rest.

Women who met the inclusion criteria (see the next section) and wished to join the study were asked during this call if they used WhatsApp. The consent form was explained and women who joined the study as participants were invited to return the completed consent form (sent with the post with further study instructions) as a photo via WhatsApp. Potential participants were aware via the research website that watching five videos was part of the study. During the phone call, the women who joined as participants were told that a link to these videos would be shared via WhatsApp. Participants could therefore start engaging with the study material and watch the videos while waiting for their post with further instructions. Sending printed documents by post seemed supportive in facilitating compliance as boxes for the participants to tick off their CR practice were included to note when they started the 14 days and when they finished (Appendix 7, section 10.7.2).

8.2.6 Inclusion and exclusion criteria

Explicitness of the sampling universe, decisions regarding sample size, sampling strategy, avoiding bias and concerns pertaining to ethical consent affect the study's implications of coherence, transparency, impact and trustworthiness (Robinson, 2014). The central inclusion criteria of Study 2 was that participants have no prior experience of the AT. Being over 18 years old, a UK resident and having English as a first language (or equivalent language skills) were additional criteria, the latter to facilitate understanding between participant and researcher. 4-13 months postpartum was the same time-span as in Study 1 and was chosen for this reason. Internet access was necessary as participation was only possible via an online connection. As in Study 1, due to different health care systems, the field-work was confined to the UK: several women who signalled interest in participating but were from outside the UK had to be excluded.

Exclusion criteria

- Prior AT experience
- KDALKDF
- Under 18
- Non-native speaker without adequate language skills
- Significant current physical or mental health issues
- Over 13 and under 4 months postpartum: staying inside the same time range as Study 1 avoided introducing an additional variable.

8.2.7 Sample size

Creswell & Plano Clark (2018) suggest that different sample sizes for collecting data from different strands in a mixed-method study is a good option. These authors state that the size of the qualitative sample being smaller allows the researcher an opportunity to achieve a rigorous, in-depth exploration of the subject under research. The size difference is not seen as an issue as the intention is to combine conclusions by gathering the findings from the different data bases.

15-20 participants in this study would provide a variety of responses, but not overwhelm the researcher with managing the study and analysing the data. The number of participants recruited to complete the survey if they practise 14 days CR was 16. The number of women to participate in interviews was set at about half this number (6-8). No generalisability was aimed for nor was statistical analysis and there is no way of knowing if the recruited sample

was representative of the universe of the target group. However, the sample size target was not so small as to nullify the results. It was also not too large as to lead to failure of reaching the recruitment target (Julious, 2005). A target sample size for a pilot or feasibility study is an unclear estimate with a degree of uncertainty (Billingham, Whitehead, & Julious, 2013) as the number of participants can hardly be known beforehand and drop out numbers, especially in this target group could have been potentially high. Blaikie (2018) has considered the confounding issues in deciding sample size: the type of research question, the context, the research purpose, the nature of the research question, the characteristics of who is studied and, particularly, the creativity of a researcher in handling this process, as being critical factors having a bearing on required sample size. As this was a small scale study the figure was chosen as it was feasible concerning recruitment, interacting with (potential) participants and data analysis. Five to seven women as the sample size for the semi-structured interviews (about half the number of total participants aimed for) was the number chosen for interview data on the barriers and facilitators of the self-care package.

Summary of the elements of the study and the intervention

In detail, the study comprised the following elements, the online input is marked with *

***Videos**

Participants were asked to watch five videos based on the AT to familiarise themselves with the method and the CR rest practice.

The five videos introducing the AT and how to use it in the postpartum and during the study are online at https://www.speek.de/research/22-allgemein/130-postpartum-alexander-technique and were accessible independent of participation.

1. A general introduction to the Alexander Technique. Viewing time: 9.5 minutes.
2. Meet the researcher. Postural instructions based on Cohen, Baer, Ravichandra, et al., (2020). Viewing time: 5 minutes. This video was made by the researcher specifically for the study and the postpartum context.
3. Anatomy and effortless breathing. Viewing time: 10 minutes.

CR rest videos for daily praxis: the Alexander Technique while lying down:

4. Short introduction. Viewing time: 2 minutes
5. A longer video. Viewing time: 12 minutes

Printed, written information

Three pages of printed information about the study and the AT with illustrations and postural instructions based on Cohen, Baer, Ravichandra, et al., (2020) were sent by post. Instructions on how to apply the AT while lying down for CR were included with an illustration (Appendix 11, section 10.7.2). The printed matter was considered more appropriate than sending via email as an attachment to save the participants having to print themselves; not all households own a printer. The guiding instructions in this document for CR were based on participants' narratives of the practice in Study 1.

***An audio message**

The guiding instructions for constructive rest as a spoken audio message for participants to listen to during practice via a smartphone application was also sent. The text was identical to the written instructions and the recording was just under three minutes long.

Constructive rest

The main intervention consisted of participants doing 10-15 minutes CR practice on their own once a day for 14 days. The time-span for asking participants to do constructive rest (fourteen times) was chosen based on the researcher's experience (and the first supervisor's) teaching experience of the AT, potentially allowing for the educational learning processes of the AT to come to fruition. The CR procedure is detailed in section 8.2.9

***The questionnaire**

Upon completion of 14 days praxis, a link to the short questionnaire as outlined above was sent to a participant which had items on key postpartum issues, doing constructive rest, and perceptions of using the online package. Space at the end of the survey was available for participants to add further comments as a free text response and was an open question.

***Semi-structured interviews**

Upon completion of the 14 days CR, when the link to the questionnaire was sent it was also asked if the participant would be prepared to take part in a short semi-structured online interview via WhatsApp to understand more about the usability, the facilitators and barriers of the package.

The study was therefore set up to be completed flexibly online at home and through reading a document received by post. All participants were WhatsApp users.

8.2.8 Analysis

In this section how the two types of data were analysed are considered. The questionnaire was the first data to be collected. When a participant had completed it, they were approached to ask if they would be prepared to be interviewed on their experiences of using the package.

8.2.9 Quantitative data

Depending on how responses from a Likert-based questionnaire are treated, various analysis methods can be used (De Vaus, 2014). Due to the small number of participants in this study, only descriptive statitics presented as bar chart images to gain an understanding of participant attitudes to and experiences of using the package were used.

8.2.10 Qualitative data

The two sources of this kind of data were the free-text response at the end of the questionnaire and semi-structured interviews with some participants. Attride-Stirling (2001) suggests that TA can be conducted rigorously and methodically to reveal meaningful results. To achieve this, the six phases of TA that Braun and Clarke propose (2006) were used to analyse the qualitative data:

i) Familiarisation with data
ii) Generation of initial codes and collating them with relevant data extracts
iii) Searching and generating initial themes
iv) Reviewing themes, patterns of shared meaning
v) Defining and naming themes
vi) Writing up

In practice, these stages were not rigidly separated but flowed backwards and forwards as the data were analysed. As in Study 1, a secure external smartphone app was used for recording the interviews and the recording device Philips Voice Tracer DVT1300 was used as a backup. The recordings were transcribed using speech recognition software Nuance Dragon 15 and deleted after re-listening, transcription checking and safe storage of the extracted data.

8.2.11 Ethical considerations

Ethical approval was granted by the University of Hull, Faculty of Health and Social Care Ethics Committee on the condition that the participants had no major health issues as no health care support could be provided for study participants. There was a low risk of discomfort which could arise during CR in participants. The potential for distress through joining the study was expected to be minimal but the support sheet from Study 1 was made available via email and was considered to be ethical, responsible researcher behaviour (Appendix 7, section 10.7.2). There was also a low risk that women might be distressed by not feeling able to comply with what the study requires. Contact with participants during participation was maintained via Whatsapp and if someone was struggling with the 14 days CR or anything else to do with the study the support sheet could be pointed to and it was reiterated that the participant was free to leave the study at any time without explaining why. Informed consent was the first item on the Likert-base questionnaire. The results were not connected by name to a specific participant who was submitting the completed questionnaire, it was anonymous so an anonymisation procedure was not needed for this part of data collection. (The full questionnaire including results is in Appendix 7, section 10.7.3). Pseudonyms were assigned to participants who participated in the short semi-structured interviews.

Staying in contact during the study

Contact with participants during the study was maintained by using WhatsApp. The first exchange via WhatsApp was a request for the participant's to share their postal addresses after the recruitment telephone call. The link to the videos was sent with this first contact via WhatsApp. The second contact was usually to enquire if the post had arrived which was a gentle prompt to return the included consent form. Photos of completed consent forms were sent to the researcher about 4-5 days after the initial phone call when their post had arrived. The third contact was usually two-three weeks later when a gentle inquiry was made as to how a participant was getting on with their constructive rest practice. Participants freely reported how far they were. This allowed for a calendar note suggesting when they might finish and when it might be appropriate to ask if the link to the questionnaire could be sent. Some reported on their own that they had finished the 14 days praxis, some forgot and this was only discovered they had finished by contacting them. This meant that it was difficult to know how long completing the 14 days had taken. The next contact after sending the link to the questionnaire (and its completion) was a request for a short semi-structured interview. Each contact via WhatsApp to participants was accompanied by best wishes for her and her family and pointing out again that if anything was unclear they should feel free to contact

the researcher. Further reasons for contact included questions from participants about where to do constructive rest and the length of time needed to complete the 14 days. Some women shared difficulties doing constructive rest which was connected with (not) being alone. Searching for a date for the semi-structured interview or declining an interview was another reason for contact as was general feedback and comments on experiences with the self-care package. The following two figures are examples of contact with two different participants via WhatsApp during Study 2.

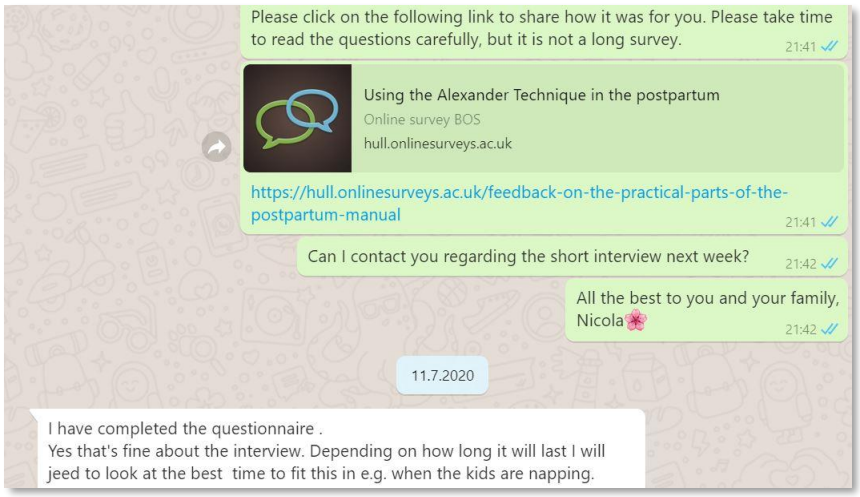


Figure 8.1 Sending the link to the survey in Study 2, asking about an interview

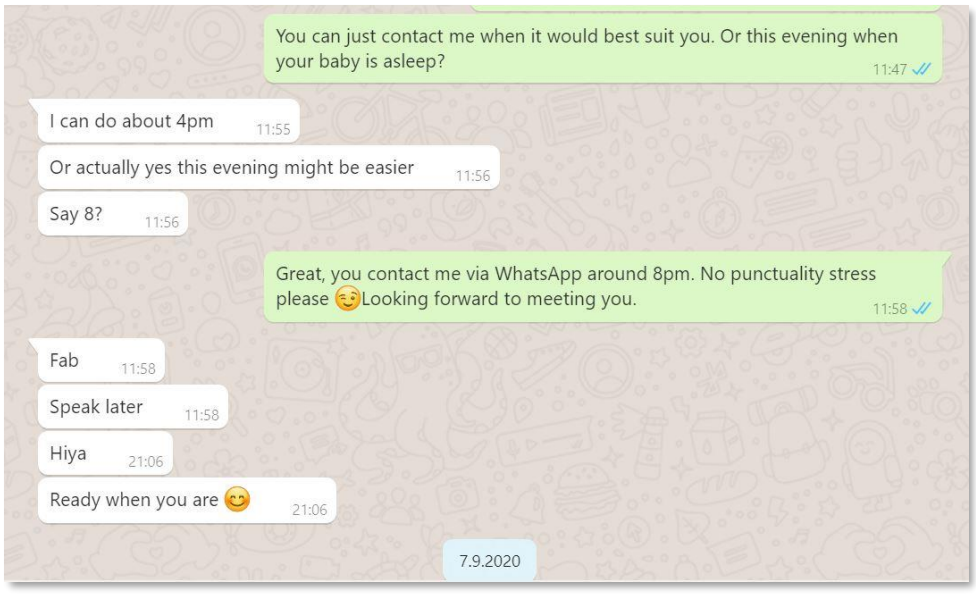


Figure 8.2 Searching for a time for the interview in Study 2

The pandemic, worries and effects on family life and emotions were also freely shared by some participants. It was the backdrop to this study and the role it played in the mothers' participation and data collection was perceivable, if not always explicit.

8.3 Results

8.3.1 The participants

In the first four weeks after launching recruitment in June 2020, the research website had 745 hits indicating interest in the study and a successful advertising strategy. While writing this up on 3.3.2021, the hits were again checked which now stood at 3531 suggesting interest in the study and subject. The following table gives an overview of recruitment:

Phonecalls with interested women	Women excluded due to prior AT experience	Women accepted into the study	Number of returned consent forms	Excluded during study due to health reasons	Number completing constructive rest 14 times and the survey
19	3	16	15	1	11

Table 8.2 Overview of recruitment and the study participants

Fifteen UK residents, aged 30-38, with no prior experience of the AT who were 4-10 months postpartum participated in this study. It was not asked though which recruitment path the participants came from. Nine were primiparous, six were multiparous. One participant was single, the others were in a partnership, one was working (online), the others were either not working or on maternity leave. Three participants had health issues that did not appear to impact their participation. Three other women who had sent back consent forms did not respond further following first exchanges on WhatsApp and their reasons for not continuing with participation were not clear. Five women participated in the semi-structured interviews. The following data analysis stems from the 11 women who completed 14 days CR.

8.3.2 Questionnaire results

Question 1 was concerned with informed consent, the results, therefore, start with item 2. Items 2-4 addressed women's general perceptions of using the self-care package in relation to the postpartum.

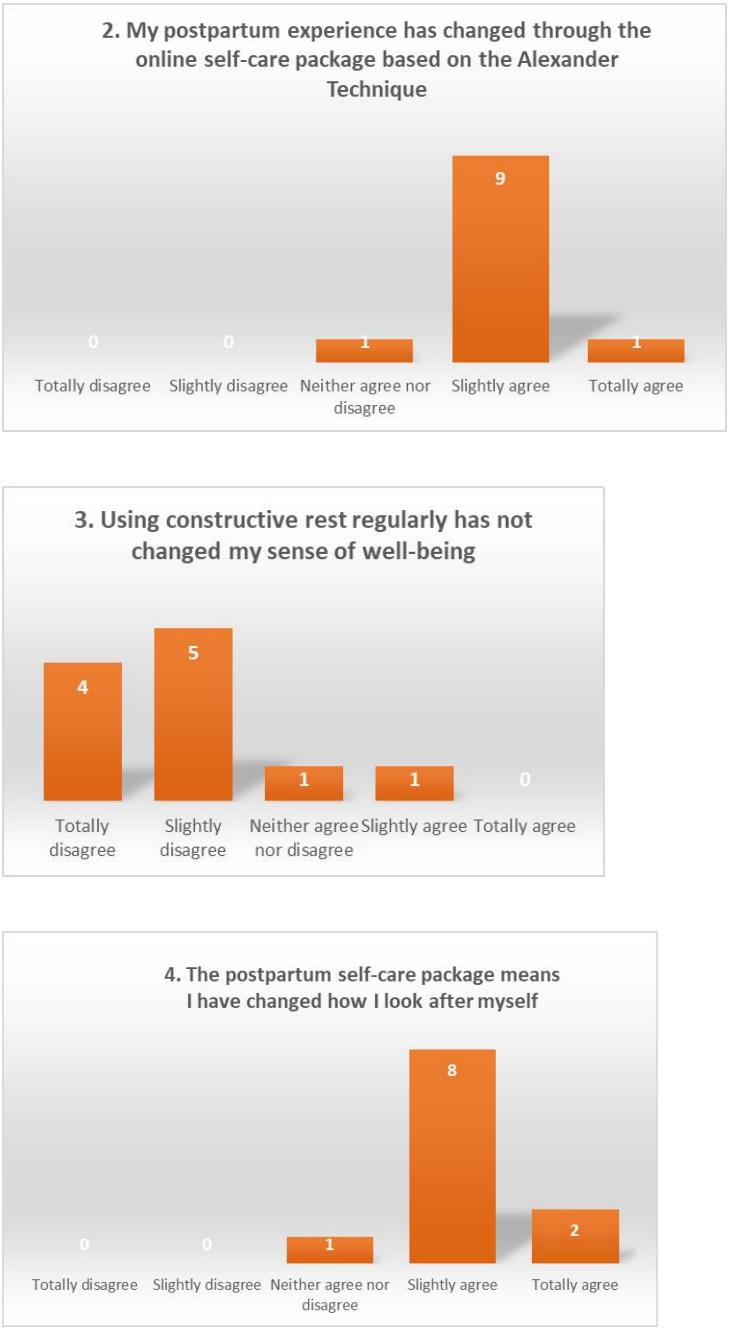
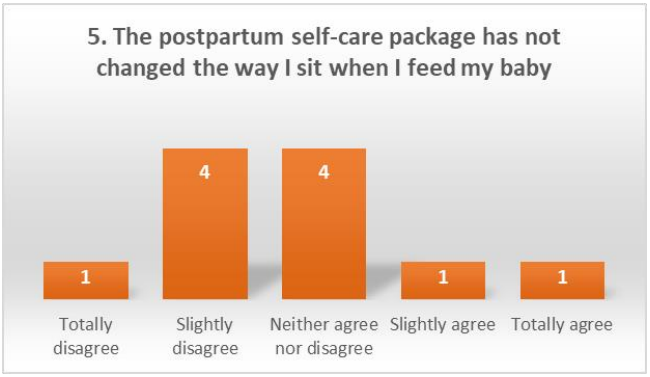


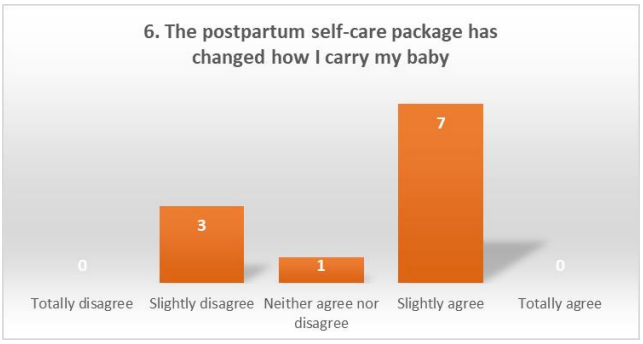
Figure 8.3 (i)-(iii) Results of the Likert survey

One participant felt her sense of well-being was not impacted and one participant was neutral in her response. These first three items were general and did not specify if the *change* was positive. While it is likely that the changes were positive (considering the qualitative data collected and responses to items 8 and 9 and the free-text responses), a future full-scale study would have to include items that were unambiguous when asking for opinions on the effects of the packages.

Items 5-6 addressed key postpartum working conditions issues and that were identified in Study 1 where participants used the AT, specifically sitting during feeding and carrying the

baby. The relationship to the baby and using the AT was item 7. The answers spread more than in items 2-4.





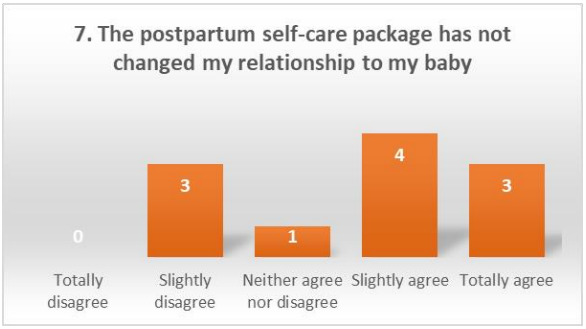
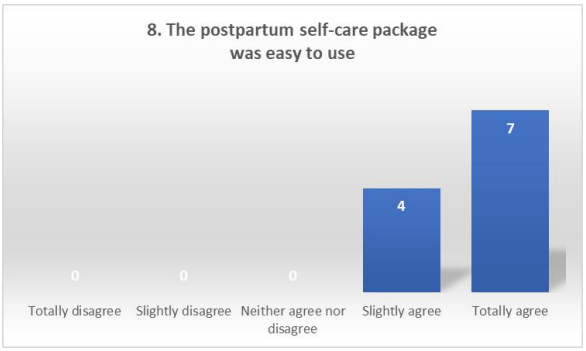


Figure 8.4 (iv)-(vi) Results of the Likert survey

Responses here were not as clear as items 2-4 indicating that if a main study was planned from this feasibility pilot study, there is potential for improvement in these areas. Five women reported that the self-care package changed how they were sitting when feeding their baby. Several participants were not sitting during feeding and holding their baby due to its age and hence this item was not relevant. Bringing two data sources together, one woman wrote in the free text response at the end of the Likert-based questionnaire: *'It would be interesting to find out if there is any other positions that would be helpful while breastfeeding as I tried* [a] *few times without knowing and it* [the AT] *helped.'*

Although Gardner and Martin, (2007) suggest there is a tendency for clustering towards the middle or extremes of the scale, this was not the case here as can be observed above, especially by contrasting answers to items 5,6 and 7 to items 2, 3 and 4.

Items 8 and 9 addressed participant's assessment of the usability, acceptability and suitability of the online self-care package:



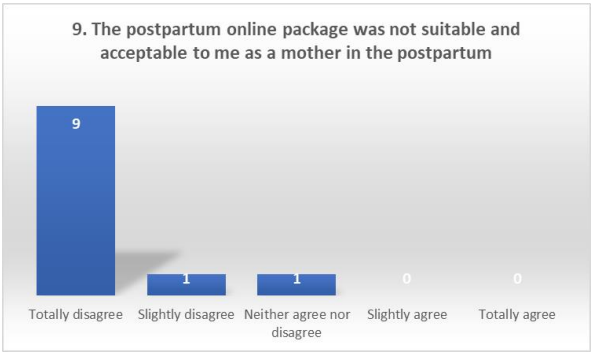


Figure 8.5 (vii)-(viii) Results of the Likert survey

The postpartum self-care package was easy to use, suitable and acceptable and to the participants. One participant's answer concerning suitability and acceptability was neutral but otherwise, participants expressed a consistent positive opinion by rejecting this negated item.Thematic Analysis of the open question free text response

Data corpus: 558 words from ten participants, one woman did not add a comment. The texts were coded and the codes added to an excel spreadsheet. Three interwoven main themes were identified: the time factor in the postpartum, the benefits of participating in the study and heightened awareness of a variety of issues. The full results of the questionnaire with the free text responses are in Appendix 7, section 10.7.3.

Time Strikingly, all ten responding participants commented on the temporal aspect. This was knitted to the benefits of CR practice: *time for oneself* (four women), the *importance* of time for oneself (one woman), time to be aware of her body (one woman), and time to just 'be'

(one woman), quiet time without her baby (one woman). The backdrop of the pandemic is clear in the following response: *'I try to be more conscious of taking time out but with three children especially during covid it's very hard.'* One participant shared *'Prior to taking part in the study I was always doing something I thought I needed to do. It allowed me to slow down and appreciate being in the moment*.' **Benefits** Five participants responding in the free text section named a variety of perceived benefits: one felt more relaxed and calmer, another reported having more energy after practice. One woman said the package helped her switch off completely (no phone or TV). Another woman said the package helped focus on what was *'actually important'.* One woman reported feeling lighter and more present on the days she practised sharing that her experience was difficult to describe but those days were *'certainly better days'***.** These findings overlap with the following responses to do with awareness.

Awareness Three participants shared that they became more aware of their *use*, one writing she was becoming more aware of how she was using her body, the other of becoming more aware of her posture. Awareness of self-management and applying the AT comes over in the short note: '*am starting to remember to adjust as necessary.'* In the same vein, one woman observed how difficult it is to be mindful of posture. One woman realised *'how important it is to really look after herself and do it very consciously'*. Another wrote that the package allowed her to '*reflect on the postpartum experience instead of just rushing around.'* A further participant shared that the AT helped her centre herself which was a phrase used in Study 1. Awareness was also a factor for a participant who became more aware of back pains after constructive rest. The same participant shared that the time of day was a big factor in determining the effectiveness of her practice; in the morning she was aware of benefitting more which is linked to the theme of time. One woman reported becoming more conscious of her breathing patterns.

8.3.3 Thematic Analysis of the interviews

While many participants signalled they were prepared to participate in the short interview, finding a date and time proved very difficult. Five interviews were done, four interviewees were primiparous, one was a mother of three. The 10-15 minute semi-structured interviews took place in the week following the completion of their 14 days praxis. The data corpus of these interviews comprised 7290 words. The text was coded and added to an excel spreadsheet. Where it was clear, the codes were then divided into facilitators (**F.**) and barriers (**B.**) which could be filtered to answer the research question. An excerpt of this spreadsheet is shown in the following:

Table 8.3 Excerpt from data analysis, interviews codes: facilitators (F.) or barriers (B.)

Ivy	started to feel more relaxed & feeling better, switching off became easier	**F.** change, switching off became easier
Ivy	going shopping quicker because felt better, s.t. changed a little bit	**F.** change, feeling better, motivation
Ivy	my husband could tell, I was more realxed on those days	**F.** External feedback from husband
Ivy	He said I was sleeping better, but no, not better, doing this Technique	**F.** external feedback from husband
Ivy	I thought all right, all right, it works!	**F.** success
Ivy	For him to see it, I was like, oh yes, this is good!	F. external feedback from husband
Janie	hardest thing, finding 15 mins for CR	**B.** Time, habitual use of
Janie	surprise at this	Emotion: surprise
Janie	just to make the time, really surprised her	surprise
Janie	initially motivated to be part of study, then perceived it personally a good thing, "actua	**F.** change in motivation
Janie	time to be aware of body, diff.parts - the here and now,	**F.** +ve experience of CR

The women's voices are put at the centre of the following analysis; most of the data is on the participant's experiences of their CR practice.

Barriers to using the self-care package and doing constructive rest

Three themes were identified as barriers: time-related factors, psychological self-management influences and issues to do with (not) being alone. Again, these themes were interrelated and interwoven pointing afresh to the psycho-physical nature of the issues under study.

Time

A common theme among participants about using the package revolved around the subject of time needed to practise CR. This corroborates the dominance of the time element reported in the free text response of the questionnaire. Participants did not find it easy to *make time, have time, find time, carve out time* or *fit constructive rest into their daily routine:*

> *'I think I wanted to push myself to do it to show myself that 15 minutes is actually not a very long time… I spend the whole day running around and you know, it actually made me stop and think to make time to… to be calm and just to reflect it, just makes you think about the here and now so it made me go back to that: about thinking about myself and presence … most of it was about just demonstrating to myself that I could do it because it's a ridiculous thing… But at the beginning I thought: I will definitely be able to do this, it's not too taxing at all… I was really surprised at the beginning, continuous… you know, every day, you know, it made me question about how I go about my day.'* (Janie)

Janie repeated several times how surprised she was that taking time for CR did not come easily. Her reflections led to greater awareness of how she uses her time which is interwoven with the theme of awareness.

Beth was the multiparous interviewee and her time difficulties were related to her role of carer in the family and not having time alone due to lockdown:

> *'I found it really difficult to carve out the time to do it, when I was doing it, I was in the house, I was upstairs and I can still hear everyone saying… my children would be saying to me: 'I NEED MUMMY!' I'm laying here and trying to zone out and get into the zone, clear my mind and not think…. And you can hear* ***can you wipe my bottom?*** *[Laughter] Not me! I'm not going to wipe a bottom… So that's really difficult… it would probably be easier to do if I weren't here, if they weren't here …that's one of the things that is really difficult.'* (Beth)

Beth's humour comes over, later in the interview she added that prioritising for herself does not come easily:

> *'I could have done it in the evening but that felt like it wasn't the spirit of it… The spirit was to take time out for yourself which I struggle with anyway… so I found that element of it difficult.'*

Lynn, like Janie, also named the time aspect and coupled it with making decisions as to how to use her time and tussling with prioritising for herself:

> *'you think before: now I don't have time to do it but 10, 15 minutes taking it out of your time, you think you've got washing to put away or* ***that*** *to do or* ***that*** *to do- you just take that 10 - 15 minutes a day to do that constructive rest and its like ah! I feel relaxed, so that's what I found […] it wasn't so easy, just say- I'm going to watch a film or I've got to sort out the kitchen or put the dishwasher on, you have it at the back of your mind, you are thinking oh, I'm childfree, I have to do this or that. Yeah, so once you've done it, it was nice.'* (Lynn)

Lynn felt better after practice and that became a facilitator, motivating her to take time which is considered in more depth in a later section. She also had to consciously prioritise constructive rest practice which was not easy and noticed how many other things called for her attention.

Fay needed a while to discover where doing constructive rest best fitted into her day:

> *'Think when I first started, the hardest part was trying to figure where it fitted into your routine… when I first began, I did miss a couple of days because I did it one day, forgot to do it the next day, did one day, forgot to do it the next day… but after that, when I managed to get it in… mainly because I did it at the same time every day, I did try and do it early in the day because when I did it early, it felt really, really good.'* (Fay)

Fay is talking about routine and again there is an overlap with the theme of awareness; she was aware of when she benefitted most.

Psychological barriers

Directing quiet attention to oneself was a barrier to constructive rest as Ivy shares:

> *'I would say the first two days it was very hard to switch off because, you know, baby baby baby baby baby - ok! This is **my** time - so that was the first two days.'* (Ivy)

Later in the interview, Ivy emphasised how her mindset altered as she claimed the time for doing constructive rest as hers:

> *'I was more like this is **my** time… you know, like I was not feeling like, I will have to be looking after the baby, like, this is **my** time…'* (Ivy)

Ivy seems to have freed herself from a sense of duty.

Mind-wandering and a constant inner dialogue during practising constructive rest were shared as a hindrance for some participants:

> *'…my mind did wander a lot… but I had done like, a bit of guided meditation… and there was my mind going: what shall we have for tea? Did I water that plant? […] you've got all that admin in your head, silly things like: have I bought those new black socks? […] it's like a constant running dialogue of… have I got enough vegetables, have they cleaned their teeth? You know, have I shut that drawer? Have I done this? It's difficult to zone out of…'* (Beth)

On the one hand, Beth seems to be gently laughing about herself but the intensity of the amount of admin she has in her head as a mother of three comes over.

> *'I found my mind was wandering quite frequently, especially when the recording was over-- I found it quite helpful to listen to somebody who told me to just follow what you were saying and where the thoughts coming in what I thought I needed to do otherwise keep my focus on the task being present now…but I still can't do it for a whole 15 minutes… improved from the beginning of the 14 days but I actually think it's a very hard thing to do not let your mind wander off and that recording: very, very helpful.'* (Janie)

Janie does not share as Beth does to where her mind wanders to but her insight is also how difficult it is to be present.

Fay shared changes that took place through time concerning mind wandering:

> *'Mentally, I felt very much better because I had kind of given my mind a little bit of release… when I was… laying down at first you are thinking about all the things you need to do… but when you do sort of manage to calm a little bit… you just feel stronger, a little more in control and I found I had more patience [smiling about herself] I don't have an awful lot of patience … but mentally you feel the difference, I was just [pause] stronger mentally- you were more in control of things. '* (Fay)

Fay also noticed how active her mind was at the start of her practice, thinking of all her to-dos, but noticed the benefits through time as her mind calmed. Lynn also shared that this was an area she found challenging:

> *'…so that was why I was struggling even though you don't need a long time to do the Alexander Technique but for me to kind of switch off…'* (Lynn)

Beth shared that a judgemental inner voice was also a hindrance she had to overcome to do constructive rest:

> *'I felt a bit silly laying on the floor with books […] The bodily feeling is what feels like a waste of time to me- or- or- of- of- less priority to me, don't know if that is the right thing to say but it's me; I'm not a rester… I had to really get past the ,I'm-wasting-my-time-lying-on-the-floor-with-my-head-on-books' kind of feeling, my front brain was going: 'this is really silly…'* (Beth)

Having space to be alone

A further barrier to doing constructive rest was difficulties with being alone which Lynn related was connected to her baby's age and behaviour:

> *'A lot of the times when I put her to bed and I tried to go away […] she was waking up, but if I just laid next to her, I could tell, she really needed me to be there… so a lot of times I felt a bit stuck… when am I going to do it? [constructive rest] The nap times were very similar, only just happened like, a couple of weeks back that she got less clingy, it could have been that she was teething at the time…'*
>
> *'I would have probably have done a bit better doing it now. Because she sleeps in her bed now, so now would probably have been better to do it all in one go [14 consecutive days of constructive rest] because sometimes a whole day is passed and I thought: missed another day, missed another day, so that's like the problems that I had, I blame [baby's name] (laughs) for that, she was so clingy and we were both exhausted and then, a lot of*

> *times when I was next to her in bed I did the Alexander Technique…'* (Lynn).

Facilitators to using the self-care package and doing constructive rest

Four themes were identified as facilitators: improved well-being, external feedback, pain relief and the easily accessible material of the study. These themes were also interwoven pointing again to the psycho-physical nature of the issues under study.

Improved well-being

Participants reported a range of benefits such as feeling less stressed and calm, feeling refreshed, stronger, more in control, more relaxed, or simply *feeling better*. These experiences may have acted as reinforcements and were potentially facilitators and motivators in using the self-care package and continuing with their practice.

> *'I suppose it was just having the time to… where you sort of just go round your body a bit, different parts of your body, where the here and now just brought me down in terms of stress level- quite calming - found that very useful to just be…'* (Janie)

Beth's understanding of productivity changed through her constructive rest practice. She considered that she habitually did two things at once and rarely really rested by doing nothing:

> *'…quite a rest in some ways, you felt quite refreshed because you were not doing the two things- for me, the shift is kind of thinking that doing the nothing is productive and allowing yourself to think that resting is productive: quite a big mind shift I think because often… actually, you are never resting because even in the times you think you're resting- so even when I'm watching television, I'm still doing something, so I think the benefit of this was the resting, that is what I'm doing **now**.' (Beth)*

Fay's full report of feeling calmer, feeling stronger and more in control of things has already been quoted in the context of mind-wandering and illustrates the overlap of domains in analysis. Citing her again:

> *'… but when you do sort of manage to calm a little bit… you just feel stronger, a little more in control and I found I had more patience.'* (Fay)

Lynn noticed an improvement in her sense of well-being before and after practice and shares that she thought she should continue because of that:

> *'I thought I will really have to stick to it: having done it, I felt a lot better… it is similar to… sometimes when you have been exercising and afterwards you feel really good.'* (Lynn)

Ivy found going shopping easier and quicker because she felt less tense and this seemed to have helped her 'allow herself' to press on with her daily practice:

> *'…it is difficult to see yourself as a priority sometimes so it was difficult for me to say- all the shopping and thinking about for the first few days but, as I say, I started to feel better, I can take this time for me now […] I started to feel more relaxed, you know, so I'm feeling better so… so that is when switching off became easier: so I knew like, going shopping would be quicker because I was feeling better, so that is something how it changed a little bit.'* (Ivy)

External feedback was confirming

One participant's partner noticed changes:

> Ivy*: 'Because of the lockdown I was more with my husband and my husband could tell, I was more relaxed on those days…'*
>
> Researcher*: 'What could he tell?'*
>
> I: *'Yes, he said I was sleeping better, but I said no, I'm not sleeping better but I'm doing this Technique. And I thought all right, all right [laughter] it works!'*
>
> R: *'That's fantastic! That's wonderful, that's so lovely to hear.'*
>
> I: *'Yeeeesss…. You kind of think you're sleeping more but you are not sleeping more. […] For him to see it, I was like, oh yes, then this is good!'*

Pain relief

Feeling specific physical improvements was also potentially part of a positive feedback loop for continuing with constructive rest praxis. Participants connected relief from pain they were experiencing and increased postural awareness through participation:

> *'…there was also like, a little pain over my shoulders and it helped me to remove a little bit of that tension. I was more conscious of the movement of my body…' (demonstrates moving).* (Ivy)
>
> *'… the other thing I noticed was also my body position, even when I was lying down, I sort of adjusted myself quite a few times, shoulder area and upper back … and I definitely think that translated to breastfeeding in terms of posture.'* (Janie)

' …that was really good because it was really like a reset, you feel much better when you change the neck position, I think that was- I was really impressed with that… either- even more than like, a massage- how your neck is. (Beth)

The material easily available online

The WhatsApp recording was a facilitator for Janie:

'… you sent me a recording on WhatsApp and I found myself using that quite a lot to help me, to bring me to that kind of focused pattern of what to do, structure, a bit of a framework […] I found it quite helpful to listen to somebody who told me to just follow what you were saying […] very hard thing to do not let your mind wander off and that recording: very, very helpful, so I suppose sometimes, in the beginning, I felt it was very difficult just to let go, unwind… so towards the end I felt very well… so… relaxed… about 10 days in, I started to note the progress a bit more, felt quite relaxed towards the end.'

The videos

The videos were understandable and Fay used one during her constructive rest practice:

'I think the very first time I did it, although I had watched all five videos… umm… the final video I actually put it on so I could watch it whilst I was doing it… I found it difficult to remember exactly what I was supposed to do, having the iPad just at one side… that really did help, it is easy when somebody is there telling you to do a thing… you can't remember everything.' [laughs] (Fay)

'I thought the breathing one was quite helpful, umm… about the way you breathe and the sort of expansion of the chest, the lowering of the diaphragm and how you sort of fill your body with air, I found that quite helpful but, as I say, I thought the most helpful thing was actually your recording, I use that quite a lot…' (Janie)

The brevity of the videos was also a facilitator:

'Watching the videos was really easy, I didn't find…that I really had to… kind of study, prepare a lot for it, very easy, nice short videos, easy to follow- to get an idea of what it is before I started…' (Lynn)

The final comment of this analysis goes to Beth, mother of three, who shared:

'I think it is something the midwives could kind of tell you about… it could be beneficial, it's almost like giving women permission more than anything to rest after they have a baby, I think that's a problem, because what people say to you is: take all the help you can, but you don't really

want your mother-in-law coming in and folding your washing… Doing this would be more empowering to women.'

With this comment, Beth is speculating that the AT could help strengthen the locus of control (the degree to which people believe that someone has control over the outcome of events in their lives, Rotter, 1966) within herself and fellow mums. She sees midwives as facilitators in the envisaged process.

8.4 Discussion of Study 2

This small scale mixed methods feasibility study examined postpartum women's perceptions of an online self-care package based on the AT. Fifteen women with no previous experience of the method and with babies under one year were provided with an AT-based online postnatal self-care package. Participants were asked to practise the standard AT procedure of lying in semi-supine for 'constructive rest' for 14 (not necessarily consecutive) days. 15 women were recruited, 11 completed the 14 days of practice and filled out a Likert-based questionnaire on their experiences. Further data were collected from a free text response in the questionnaire and semi-structured interviews. Questionnaire results suggest that participant's sense of well-being and how they self-cared was impacted by the package and changed their postpartum experience. Participants found the package easy to use and acceptable. Items on carrying and holding a baby were included, frequent postpartum activities which are potentially a source of physical tension. Responses showed that only a minority of participant's sitting while feeding their baby was impacted. This may be because older babies are no longer held during feeding, but sit on their own and the item on sitting was not relevant. Another interpretation of this result could be a weakness in this aspect of the study input which would be reviewed if a full-scale study was planned. Stratifying participants according to the age of their infants would also be necessary if a full-scale study was conducted. In contrast, the majority of respondents shared that the package had changed how they carry their baby. The least influential aspect of the package was in the mother's relationship with her baby; seven women reported no change. Three general items of the questionnaire were not unambiguous; this would also require rectification in a full-scale study.

The data from the free-text responses and short semi-structured interviews with five participants were analysed with Thematic Analysis (Braun and Clarke, 2006, 2015, 2019). The interviews aimed to identify facilitators of and barriers to using the self-care package. For the ten women who added a free text response and for interview participants, *time* was a theme.

The 10-15 minutes needed to practise constructive rest was a (potential) barrier to practising for 14 days. It may have been the reason that three recruited women dropped out. Using time while their baby was napping to practise CR (instead of doing housework) was not easy for the mothers. Socialising or leisure activities were also activities competing with deciding to engage in CR. However, in the long run, the benefits of constructive rest were manifold. The practice led to increased feelings of well-being; participants reported feeling refreshed, having more energy, less tension, feeling more relaxed, more patient and also feeling a little more in control and able to switch off ('*completely*'). CR allowed more self-contact, it was a space to sense embodiment, become more present, letting participants re-set themselves. The time issue, therefore, had two sides: initial difficulties prioritising for oneself but then sensing the benefits which seemed to facilitate continuing practice. Woods et al., (2020) suggest that changes from learning the Technique come from an alteration of a person's relationship to themselves which gives a sense of control, more self-acceptance and includes self-compassion. A reduced sense of stress was found by Stallibrass et al. (2002) as a benefit of AT lessons for people with Parkinson's disease (alongside reducing associated disability). Woodman et al., (2018) observed an increase in self-efficacy and self-care through taking AT lessons. Participants of Study 2 had only received online (and some written) input drawing on the AT principles and had *not* taken lessons; they had been practising alone. Nevertheless, some similar changes seem to have taken place as reported in the literature on the AT. This raises the issue of what the AT actually is: a hands-on practical work taught by qualified teachers or can be conveyed by other means? That discussion is outside the scope of this thesis and is, as already mentioned, being energetically discussed in the teacher's community as a result of more online teaching due to the pandemic.

Fortin and Girard, (2005) reported participants in their study were cultivating 'an open awareness of the body' with a modification in thinking and the emergence of a sense of wholeness. The possibility of transfer of principles and strategies from the AT to other areas was also a finding as well as changes reported representing the utilization of strategies that demonstrated a change in thought and perception. Cacciatore et al., (2020) also note the transferability of AT benefits to other settings. McClean et al., (2015) suggest that emphasis could be placed not on what the student needs to do to get something right, but on what she needs *not* to do, regardless of the immediate result. *Non-doing* may have been one of the subtle and central aspects of participants' benefits. In one case, changes were observed by an outsider, the husband's participant.

The issue of mind-wandering during constructive rest was reported by some interviewees as an initial barrier during their practice. Towards the end of their 14 days, participants reported becoming calmer and feeling more relaxed. These tangible benefits seemed to have facilitated and motivated participants to continue with their practice. Armitage (2009) found evidence that lessons in the AT lead to changes in thinking, with a move to less negative thinking. These findings have similarities with mindfulness practice with a perceived reduction in perceived stress and rumination (Shapiro, Oman, Thoresen et al., 2008). Mindfulness has already been discussed in section 2.5. Again, there were two sides for participants; the initial challenge of persevering, despite mind-wandering, and then gradually experiencing the benefits the more often they practised. However, women with anxiety issues or PND could find the quiet of constructive rest potentially challenging as the procedure could highlight rumination and worry: this kind of intervention may not be appropriate for all women. DeJong et al., (2016) note the role of rumination in the onset and maintenance of depression. Attending to the *physical* of the psycho-physical through *directing* also seems to be the main distinguisher between the AT from general mindfulness-based approaches to benefit well-being.

Kantrowitz-Gordon, Abbott and Hoehn (2018) conclude that mindfulness has its place in promoting postpartum well-being which Guo, Zhang, Mu et al., (2019) suggest although Luberto et al., (2018) find the role of mindfulness practice for the postpartum unclear. Luberto et al., (2018) found in a pilot study based on mindfulness-based cognitive therapy (MBCT) for pregnant women with elevated anxiety a significant pre- to post-intervention improvement in anxiety, depression, worry, mindfulness, and self-compassion. Interestingly, the 3-minute breathing space was the most practised post-intervention exercise of this study with 91% practising it postpartum. This seems to relate to the findings of this study in that taking space means prioritising for oneself; it then possibly involves becoming more aware of oneself and becoming more present. This may possibly then lead on (through time) to connecting more to one's needs by coming more in touch with oneself and resulting in increased of congruence which is further discussed in Ch. 9.

The working conditions of the postpartum and Study 2

The working conditions of the postpartum (section 1.1.3) include feeding and carrying the baby, often for many hours a day (Thompson et al., 2002). This can be a potential source of physical tension, pain and discomfort. Participants experienced a positive physical feedback loop from the self-care package; shoulder tension, the upper back and the neck area were

mentioned by interview participants as becoming pain-freer. Four free-text responses also mentioned postural aspects and changes in this realm. One participant said she felt *more centred* following her practice which seems to be an experience spanning the psycho-physical realm. The AT-based input offered specific means whereby tension in these areas can be proactively lessened. Wenham et al., (2018) found evidence of participants reporting that they gained the ability to release excessive muscular tension through taking AT lessons. Intervertebral disc dysfunction and BP can adversely affect quality of life (Newell et al., 2017). The number of women experiencing LPP in the postpartum is unclear (Ch.3). High-quality evidence that lessons in the AT help people with chronic BP or neck pain exist although only from a small number of trials. Regularly lying down on one's back as a postpartum mother and drawing on the principles of the AT seems to have potential as a contribution to postnatal back and intervertebral disc health.

Availability of the package and ease of use

The material for this study was easily available; an audio recording for women guiding them through constructive rest, via WhatsApp played a central role and was helpful. This direct contact was central to communication between participants and I during this study. Ashford et al., (2016) note that drop-out rates in online perinatal intervention studies tend to be high. Gammer et al., (2020) speculate that with some kind of supportive contact during their online RCT (with the same target group) lower attrition, higher engagement and greater intervention effects could have been expected. WhatsApp seems to have been an aspect of the relatively high completion rate in this study (73%) and has potential as support during interventions for postpartum women and warrants attention.

Notably, this study engaged participants' awareness and did not involve physical exercise or adherence to a study protocol. Bringmann, Bringmann, Jeitler, et al., (2021) in a study on mediation based lifestyle modification found that about half the participants shared it was difficult to integrate the exercises and contents of the course into daily life. Establishing a regular practice and finding space and time in life was challenging. Individual participants experienced pressure to do the exercises which were felt as a duty. In this study, participants received input on the AT but how they integrated this into their postpartum life situation was left up to them. CR was an invitation for quiet time alone, lying in semi-supine in an aware, non-end-gaining, 'non-doing' state. Participation in the study also seemed to give them 'permission' to rest. The procedure was a space for participants to engage with themselves without having to achieve or *do* anything but follow the guidance through the process.

Repeating the procedure up to 14 times and the available online input based on the AT seemed to have initiated self-reflection allowing for more awareness of postpartum experiences and the quality of their self-management. Wenham et al., (2018) found evidence of lessons in the AT leading to gains in self-awareness with skills and knowledge facilitating behaviour change. Increased awareness of self-management patterns was a theme in both the free-text responses and the interviews. Doing something differently became an option; one participant shared her new mind-set: *taking time out for herself to rest is productive*. The time-span of weeks while participating seemed to allow for this kind of learning experience to unfold. Woodman et al., (2018) found that lessons in the AT led to significant improvement in the way participants lived and cared for themselves and also note that learning and using the AT has a reinforcing self-learning quality. However, as already noted, the topic of rest in Lambermon (2020:7), reviewing 29 studies on self-care in the early postpartum, appears only once and in context of the partner to make sure *'that the mother takes sufficient rest'.* To be able to be aware of a need for rest one needs to be in touch with one's self, to sense rest as a need and then to also be able to decide to prioritise for rest (or oneself). This study suggests that drawing on the principles of the AT can strengthen this connection which is a process of personal development. For previous generations, as mentioned, a period of postpartum rest after birthing was normal. The loss of lying-in in the UK has been mentioned as has the retention of a period of taking it easy after birthing in Germany, at least while *'im Wochenbett.'* It also seems feasible to suggest that there is a gap in the literature (in society?) that maternal rest at later stages of the postpartum is not something normal, encouraged and natural. The AT 'gives permission' to rest in a society which, it is suggested, has dominant motherhood discourses that seem imbued with a 'get on with it' attitude despite the known prevalence of sleep disruption and deprivation with resulting tiredness. That no literature in English on the subject of postpartum rest independent of bed rest after birthing could be located also seems to suggest this situation.

Both physical activity and Yoga are acceptable to postpartum women (Eustis, Ernst, Sutton et al., 2019). An AT approach to supporting maternal postpartum well-being differs from such paths as it does not include exercise. However, while it is well-established that physical exercise benefits well-being (Mandolesi et al., 2018) self-efficacy declines with tiredness (Rogala et al., 2015; Chau and Giallo, 2015; Lesniowska et al., 2016). It seems feasible to suggest that a conscious approach to pro-active resting to reduce tiredness and tension is a missing element in maternal well-being; the benefits of exercise cannot be utilised if energy is lacking to take it due to tiredness. Thompson et al., (2002) suggest that tiredness is one of the least resolved issues of the postpartum. The emotional component of tiredness seems

relevant here and Kurth, Spuchiger, Zemp Stutz et al., (2010) have explored the challenges of the postnatal hospital stay of crying babies and tired mothers. They concluded that new mothers often need permission to focus on their own needs along with practical support with infant care while recovering from birthing. These authors suggest strengthening family health from the earliest stage through postnatal care which establishes conditions enabling mothers to balance caring for their babies with their own needs. The potential that becoming familiar with using the AT principles in this area seems significant.

The self-care package and the constructive rest process seems to have increased participants' contact with themselves, heightening their self-awareness and needs, for example, time for themselves. Lambermon et al., (2020) discuss self-care agency noting that internal factors such as personal characteristics and experienced physical and emotional well-being appear to affect self-care needs. Confidence and self-efficacy also appear to positively influence self-care needs (Fahey and Shenassa, 2013). Investigating the role that learning the AT and using the CR procedure could play in creating an upward spiral of self-care and self-efficacy with benefits to well-being for postpartum women seems a valid call.

8.4.1 Strengths and Limitations

This is the first (known) mixed-methods study of a postpartum self-care package based on the AT. Positive findings suggest that the overall setup of the package was effective and has potential. The study had limitations due to its small size and the conclusions drawn must be treated with caution. The recruited women may have been especially receptive to alternative methods such as the AT. The included sample was not representative of postpartum women in general with no members of an ethnic minority group included. A further limitation of this study was the pandemic setting with women at home with their families and issues of (not) being alone which may have led to different results in normal circumstances. The issue of participants giving socially desirable responses can be a limitation of studies of this sort. The good spread of answers, (for example in items 5,6,7) suggests that the women were not subject to this tendency.

In a larger scale study or a move to a trial, the questionnaire items would need to be addressed as the constructs used here were not defined (postpartum experience, well-being, self-care). In the same vein, face validity would also need to be addressed to ascertain whether the items actually measure what they purport to measure. Face validity is a similar concept to content validity and assesses whether the measure looks right on the face of it. That is, that it self-evidently measures what it claims to measure Barker et al., (2016). This

could be addressed by using a longer, more differentiated questionnaire with items on different facets of 'postpartum experience', 'self-care' and 'well-being' with space for free text responses to collect qualitative data after each item. The problem of face validity for a well-being item would, however, not be easily resolved as defining perinatal well-being remains a challenge (Wadephul et al., 2020). The open question at the end of the questionnaire with space for a free text response suggested change had occurred and could have been more neutrally formulated and a full-scale study would address this. It would be necessary to stratify participants with respect to the age of their babies concerning the baby-age-related items, carrying and feeding. The questionnaire would also need to be piloted before launching.

8.4.2 Future Research

Determining the effectiveness and degree of positive changes initiated through online input based on the AT compared with taking individual lessons deserves some research attention. Using the internet for self-help programmes offers widespread, flexible and easy access at low cost (Corno et al., 2016; Felder et al., 2017). Using video conferencing tools and being online may also become a self-evident natural matter of course due to the pandemic. Lambermon et al., (2020) note how postpartum care is generally centred around physical self-care needs with less attention being put on emotional needs. The psycho-physical approach of the AT is therefore of significance and interest. There is a need to attend to well-being rather than maternal mental illness (Alderdice, McNeill, and Lynn, 2013). The findings of this study seem to merit further research into developing on- and offline AT-based programmes to support and contribute to postpartum well-being especially as a preventive measure starting during pregnancy. Midwives and health visitors could here potentially play a pivotal role to promote research into constructive rest.

8.5 Chapter summary

In this chapter, Study 2, a mixed-methods feasibility study for postpartum women without prior experience of the Alexander Technique was presented. The study involved women using a self-care package that drew on the principles of the AT and was in an online format due to the pandemic. The study aimed to explore the acceptability and usability of the online elements that will be used for *The Postpartum Handbook; mindful maternal self-care with the Alexander Technique* which will be written using the findings of this PhD. Videos, written information for participants sent by post and an audio recording were the study input. Additionally, and at the centre of this study, were participants practising 'constructive rest'

on their own - drawing on AT principles while lying in semi-supine. The rationale for the design was given, with details of inclusion and exclusion criteria, recruitment, sample size and methods used for analysis. Ethical considerations and how the researcher stayed in contact with the participants during Study 2 via WhatsApp were made clear. The role of WhatsApp for the 73% completion rate and the benefits of the online format of the study were made transparent. Eleven of 15 recruited women who sent consent forms completed the study. The positive results of a Likert-based questionnaire were presented as was the analysed text data from the free text response in the Likert-based questionnaire and semi-structured interviews with five participants using Thematic Analysis. Limitations of this modest study were discussed. The three data sources combined yielded a more complete picture of participants' experiences and perceptions of the self-care package and enhanced the findings of this small study. A stark finding was that prioritising time for themselves alone to practice constructive rest was difficult for participants, reasons for this were discussed.

9 AN INTEGRATED DISCUSSION

'Change involves carrying out an activity against the habit of life.'

Alexander (2000:9)

This thesis has explored the Alexander Technique and how women use this method of psycho-physical re-education in the postpartum. Study 1 revealed that women with experience of the AT use it with a sense of agency during the potentially challenging postpartum with its working conditions unique to this phase of life. A habitual sense of maternal duty was found in this qualitative study as having the potential to undermine the sense of agency with consequences for self-care. Study 2 was a modest mixed-methods study which, due to the pandemic, led down a new, unexplored avenue by offering an online postpartum self-care package based on the AT. Findings revealed that a challenging issue about the postpartum for study participants was taking time out. In both studies benefits to participants' psycho-physical well-being were identified through applying the AT principles of inhibition and *direction* in everyday activities and notably from using the constructive rest procedure. The benefits of using the AT principles for the physical side of the postpartum and complaints such as tension-related BP were findings in both studies. In the following, findings from both studies are drawn together and discussed. This discussion leads to suggesting a mechanism of action of the AT: that applying the Alexander Principles increases congruence. The chapter starts with a consideration of the construct 'the self'.

9.1 The self

The self has featured prominently in previous pages in the context of self-management, use of the self, self-care, self-efficacy and contact to the self. The self can have a sense of agency. The concept of *self* has though, only been briefly touched to share Alexander's holistic understanding of the construct. In the following Carl Rogers' conceptualisation is elaborated and linked to the findings and AT processes identified in the two studies. Hattie (2014) points out that the literature on self-concept is immense and that the notion of the self has been pivotal in theories of philosophy, psychology and psychotherapy. He also suggests that the concept of self is of major interest to psychology and educationalists but that the empirical literature is confusing.

Alexander's (1941:xxxii) freely admits that his concept of the self was simple.

> *'I prefer to call the psycho-physical organism simply 'the self,' and to write of it as something 'in use,' which 'functions' and which 'reacts.' My conception of the human organism or of the self is thus very simple, but can be made difficult by needless complications resulting from the preconceived ideas which readers bring to it.'*

Rogers (1959:200), addressing this topic as a psychologist, developed a differentiated psychological conceptualisation of the self. The raw material from which an organised self-concept is formed, Rogers suggests, is the general self-experience of any event or entity in the phenomenal field which is discriminated by the individual as 'self', 'me' or 'I' or related to 'self', 'me' or 'I'. In detail, the terms self, the concept of self, self-structure refers to,

> *'the organised, consistent conceptual gestalt composed of perceptions of the characteristics of the I or me and the perceptions of the relationships of the I or me to others and of various aspects of life together with the values attached to these perceptions. It is a gestalt which is available to awareness <u>though not necessarily in awareness</u>, it is a fluid and changing gestalt, a process, but at any given moment it is a specific entity which is at least partially definable in operational terms […].' (p.200) [Researcher's underlining.]*

Several mechanisms of action of the AT have already been suggested (section 7.4) but how the AT 'works' has not yet been fully understood. In the following, suggestions are added about how the *fluid and changing gestalt* of the self might be modified by applying the principles of the Alexander Technique. This integrated discussion, therefore, comments on the findings of Study 1 and 2 and offers an additional interpretation as to why the study participants might have psycho-physically benefitted from using (or drawing on) the AT principles. The role of awareness is central to the following discussion.

It is proposed that the underlined part of the above passage ('*the self is a gestalt that is not necessarily in awareness'*) is significant because applying the AT brings experiences and aspects of self not previously symbolized in awareness *into* awareness. This then potentially enables a more accurate symbolization of experience initiating a shift and revision in the gestalt of the self. It is suggested this is part of the process of facilitating change through using the AT that can arise especially during the quiet of lying in the semi-supine position. Rogers (1959) has noted the role of *openness to experience* for personal change and development processes. That the AT employs processes similar to mindfulness practice has already been discussed and that the method goes beyond mindfulness through *directing*, likewise. Elaborating on the use of *directions,* it is proposed here that one of the aspects and effective mechanisms of action the AT uses that go *beyond* mindfulness is directly linked to

the specific and detailed procedure of addressing the HNB-system. These very physical aspects which are addressed as part of using the AT, bringing the neck, back and shoulders into awareness, breathing, contact to the ground, (as already detailed), possibly leads to previously unavailable self-experiences in the physical realm coming into awareness: *'my shoulders are tense – I am tensing my shoulders'.* This then enables inhibiting habitual tension patterns, for example, as Study 1 participants reported and some Study 2 participants. The findings of studies 1 and 2 revealed that becoming aware of *use* is an *ongoing* process and was especially acknowledged as a continual learning practice by Study 1 participants. The practical processes in AT lessons that lead to these proposed shifts, changes and increase in self-management awareness have been sketched on in Ch. 2 and Woods et al., (2020) have described them in detail. The practical procedures in an AT lesson promote, I suggest, self-exploration which is the foundation for new experiences coming into awareness. Working on oneself outside a lesson, notably in semi-supine, also seems to be the foundation for increasing self-exploration.

Congruence

To detail what bringing experiences previously not in awareness *into* awareness actually means, parts of Rogers' theory of personality (1959) are now cited which includes the concept of (in)congruence. Incongruence means that,

'…a discrepancy develops between the self as perceived and the actual experience of the organism. The individual may perceive himself as having characteristics ABC and experiencing feelings XYZ. An accurate symbolization of his experience would however indicate characteristics CDE and feelings VWX. When such a discrepancy exists the state is one of incongruence between self and experience.' (p.203)

This process of change towards greater congruency is illustrated below using 'maternal sense of duty' and the element of time which were both identified in the study findings, especially in Study 2. The diagram over-simplifies to make a point, there are doubtlessly many shades of becoming more congruent in this area, starting with enhanced self-perception leading to putting oneself on the agenda (which is also a process), The overlapping circles represent increasing congruence between the (ideal) self and (true) experience:

Figure 9.1 Becoming more congruent through using the AT in the postpartum

Twigg (2014) illustrates this process of change as follows:

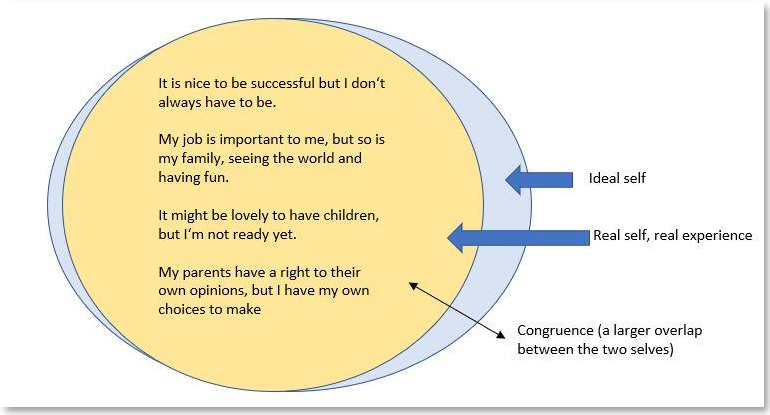


Figure 9.2 Becoming more congruent, the person-centred framework, Twigg (2014)

The AT process, it is suggested, touches on a further concept of Rogers: the self-actualizing tendency (SAT). Rogers (1959) postulates that such a self-actualizing tendency [69] is exhibited

[69] The biological side of the SAT involves drives to satisfy important basic needs for food,water, and air.

by the organism as a whole ('the whole' overlaps with Alexander's understanding) and he describes it as,

'the inherent tendency of the organism to develop all its capacities in ways which serve to maintain or enhance the organism in its development towards autonomy and away from heteronomy or control by external forces.' (p.196)

Rogers argued for the implications of the person-centred framework as becoming a self-empowered person (Ismail and Tekke, 2015) and the sense of agency that was identified as an attribute of Alexander mothers in Study 1 (Ch.6) seems to provide evidence for suggesting that the AT empowers. Woods et al., (2020) and Glover et al., (2018) make similar suggestions. Similarly, this tendency can also be identified in Study 2 participants although they were 'only' drawing on the principles of the AT and had not had AT lessons. The space and quiet of CR (and perhaps having 'permission' for that through participating in the study) seem to have facilitated some of the processes involved in the SAT towards greater congruence allowing time for the SAT to unfold. Maslow's work on self-actualizing people needs commenting in this context. Maslow postulated that people actualise needs which he details in his familiar hierarchy with self-actualisation at the top of his theoretical pyramid. When lower needs are unmet, a person cannot devote to fulfilling her/his potential. Rogers' conceptualisation (using similar terminology) involves a *tendency* (an impulse, shift or trend) that every living creature leans towards. Maslow's understanding refers to people who are '*self-actualizers'* and limits it to only about two per cent of people (Boeree, 2006). It is, therefore, quite a different concept.

Study 2 findings suggest that participants' well-being was enhanced in a variety of ways as they became more in touch with themselves during the days and weeks of their CR practice. Their real-self experience seemed to become more accurately symbolised in their awareness (their need for time alone and increased awareness of their *use*, for example, sections 8.3.3 and 8.3.4). There may be a case for arguing that there are three, not two levels which could be theorized: the perceived self *('I'm racing through my day'),* the ideal self (formed in part by societal discourses) and the real experiencing self *('actually, I'm really tired').* This process of becoming more congruent may also be what *'coming back to myself'* and feeling centred, or listening to one's inner voice, part of Study 1 findings, really means: becoming more in touch with one's real experience. Twigg (2014:8) notes that the central aim of Rogers' approach remains to increase,

'a person's awareness of their deeper feelings, true thoughts and inner resources. This leads to trust in a person's decision making and enables independent problem-solving.'

The person-centred framework has become known for the three variables that Rogers found to benefit the SAT during therapy: empathy, unconditional positive regard and congruence. I suggest that the mindful, non-judgemental, *non-doing* attitude that the AT foregrounds when working alone on oneself with the AT principles is both empathic with unconditional positive regard towards oneself. In lessons, how teachers closely attune to clients can possibly have a similar impact as explicit and articulated empathy. On the other hand, the AT does not suit everyone and challenging feelings and emotions can arise during the work because coming more in touch with oneself can be uncomfortable or even touch trauma. [70] Additionally, not all teachers are trained to deal with emotional reactions to the processes the AT can initiate. Kinsey, Glover, Wadephul (2021) in a review looking at how the AT may lead to non-physical outcomes found five papers from four studies underlining the importance of the client-teacher relationship and teachers managing the process when challenging emotions arise in lessons.

9.2 A sense of coherence

It is further suggested here that evidence from the study findings (especially Study 1) shows that the AT promotes a sense of coherence which is,

> *'a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli, deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement'* (Antonovsky, 1987:19).

Being able to use their AT skills enabled participants of Study 1 to predict and explain, for example, on-coming back pain by observing their *use*. The concept of *use* provided a structure for comprehending stimuli (from within and without themselves) and they had (AT)-resources to meet the demands of these stimuli. A SOC can be considered to be an individually based coping resource through the availability of knowledge about how to

[70] **Reflexive footnote**: My own experience was in this realm: I took my first AT lesson aged 24 and had to stop and leave the lesson after only 20 minutes because of dizziness and acute nausea. This reaction was connected to the attack and sexual assault I'd experienced at the hands of a stranger as a 15 year-old. He'd repeatedly put pressure on my throat and neck during the assault. Through several years of lessons and the three-year Alexander teacher-training course these reactions resolved without being directly addressed.

master situations (Geyer, 1997). It seems the significance of a sense of coherence during the postpartum, acknowledged as a potentially stressful life phase, is especially relevant. A person‘s sense of coherence can exist at the individual and family level (Ngai & Chan, 2020). The manageability of the parental role and internal coping behaviours, (dealing with the stressful demanding part of the postpartum) meaningfulness of becoming a parent and raising a child in a family (worthiness of investment) and comprehensibility of parenthood are aspects of a family sense of coherence (Ngai and Chan, 2020). The same authors identify the changes in physical and emotional health, as well as changes in roles and responsibilities and relationships as further aspects of a family SOC during parental transition. Data on these aspects that were supported by the AT were found in interviews of Study 1 participants (see section 6.4) but also in the qualitative data of Study 2 interviews (see section 8.3.4).

The bi-partite brain and different types of attention

McGilchrist‘s work on the bi-partite brain and the different types of attention of the right and left hemispheres has already been mentioned (p.185). This work aligns with the above discussion because McGilchrist (2019:pos.642) suggests that the right hemisphere is,

> *‘concerned with the whole of the world as available to the senses, what it receives comes from the left or right [hemisphere]; it delivers to us a single complete world of experience‘.*

McGilchrist (2019) suggests (citing numerous studies) that the left hemisphere’s (dominant) focussed and narrow attention assists in *grasping* what has already been focused on. This may potentially explain why women in Study 2 had to initially tussle with their to-dos and mind-wandering during CR. McGilchrist sums up by saying that the right hemisphere is responsible for every type of attention apart from focussed attention and, contrasts it with the dominant left hemisphere which has sharply focussed, fragmentary attention which is already committed to its object, like a narrow beam. The right hemisphere has a sustained, vigilant and uncommitted attention that is broad and open. Possibly, it was right-hemisphere attention that came into awareness as a result of CR in Study 2 and this may have played a role in increasing congruence as the participants‘ experience in accessing it grew through time as their CR skills grew with practice.

Well-being, the AT and the postpartum

Numerous studies dealing with the loss of well-being in the postpartum have been cited in this thesis. Facilitating and supporting perinatal well-being through an approach using

conscious self-management such as the AT therefore seems a valid call. Well-being remains, however, difficult to define and elusive (Dodge et al., 2012; Wadephul, 2020); two models of well-being are reviewed in the following both with diffuse and indirect connections to the AT. Although research output into the AT has focused on quantitative studies (Ch.2, section 2.10) there is evidence emerging (potentially including the findings presented in this thesis) that the qualitative well-being benefits of applying the AT principles deserve more attention. Models of well-being are therefore of interest.

Dodge et al., (2012) propose a dynamic model of well-being which has affinities to the AT as it is holistic with the role of skill included. This model balances resources with challenges in a see-saw model (Fig 9.3) whereby both sides involve the psychological, social and physical elements. The authors view the see-saw as representing the drive of the individual to return to a well-being set-point and the person's need for equilibrium and homeostasis. This links to the impulse to work on oneself with the AT, for instance, when back pain might be oncoming (which Jennie, Fiona, and Phil described, Ch.6) or feeling tired and needing rest to regenerate and inhibiting the habit of continuing with maternal duties. Making these choices allowed for more equilibrium and homeostasis to come in for the women in Study 1. Having the means to be autonomous to be able to create homeostasis seems to imply a self-management that has the ability to manage demands and maintain balance. Fay, a participant in Study 2 directly shared that she felt more in control through her CR practice. There were other reports from Study 1 seeming to imply that the participants felt less vulnerable to external influences.[71] The model also allows for the fact that each person has a unique pool of resources that can be continually widened and developed which echoes the topic of the quality of use of the self and becoming more aware of *use*. The sense of agency, and how important it is for human beings, is included in the model and seems to be a facet of autonomy and sensing agency has been considered in section 7.5. Resources within such self-management skill repertoires can be measured and the model allows for the fact that everyone develops different resources within a lifetime.

[71] In Study 1: Fiona feeling free to co-sleep because it feels right for her although she knows in society it is seen as dangerous or not introducing a fixed *nap time* like other mothers do. Also, Fiona was not joining in the discourse that '*having a baby limits your life'.* Annie: not letting herself be 'triggered' by a crying baby and getting herself comfortable first before feeding.

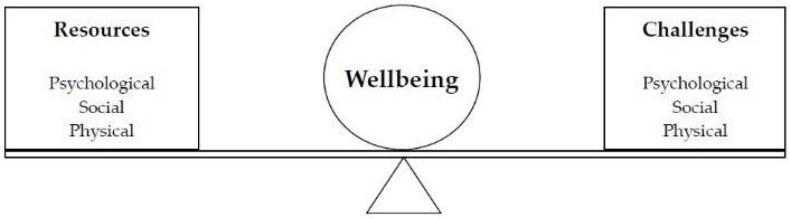


Figure 9.3 'Definition of wellbeing', Dodge et al., 2012

Another dynamic conceptualisation of wellbeing is drawn from The Centre for Development Studies, White, (2010). This well-being explanation draws on the work of the 'Wellbeing in Developing Countries Research Group' (WeD). White suggests that in the well-being context, relationship is central: between individual and collective; between local and global; between people and state. (One could potentially add between 'ideal self', the 'preceived self' and 'real experiencing self'). White sees that the attraction of this concept of well-being is its holistic outlook, connecting a person's various levels of being; mind, body and spirit. This overlaps with proponents of the AT's understanding of the undivided self. The WeD understanding of well-being integrates the aspects of time and life-phases, recognizing that life takes place in space and is hence '3D' and above all, it is a dynamic process. This well-being concept is holistic as well as dynamic; it allows well-being to be understood as a process and avoids the common academic urge to attempt to define with (inadequate) words what well-being 'is'. Its relevance to the postpartum is apparent allowing for fluctuating well-being states which could result, for example, from experiencing tiredness after a night with sleep disruption and doing CR and then feeling less tired.

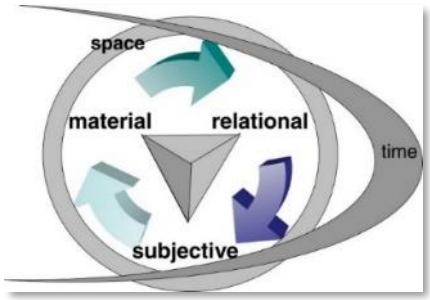


Figure 9.4 Wellbeing as a process. White, 2010

Both White (2010) and Dodge et al's (2012) models are dynamic, they are neither rigid models nor rigid concepts. There is adaption to change and 'mobility' or *movement* (in the widest sense of the word) in them. Rogers' conceptualisations of self and increased congruence (overlapping circles moving closer) also have connotations of *mobility* with shifts

meaning personal growth and development. Likewise, his concept of the self-actualising tendency. The factor linking these different realms may be, I propose, *change, flexibility, adaptability* (both muscular and inner flexibility of an undivided self) *anchored in experience*, not anchored in inflexible thoughts or concepts. Study 1 participants reported adapting to their child's (and their) needs, accomodating flexibly in a wide range of postpartum circumstances. A maternal sense of duty could hinder this flexible accommodation when it was a more dominant attitude than being in touch with ones' need, for example, for rest. Women in Study 2 seemed to take up the flexible possibilities of their self-management that opened up through their study participation. The results showed how their well-being benefitted. This then seems to me the essence of well-being in the postpartum: having the means whereby flexible adaptation which is anchored in lived experience can manifest and express itself. This is in striking contrast, for example to a rigid concept of what a mother *thinks* she should do (or how she should 'be'); unconscious facets of a rigid maternal sense of duty potentially being such an example.

Societal discourses shape what a mother thinks she should do. Mayer (2009), in a thesis which analysed contemporary discourses of mothering identities, cites advice that puts a baby's sleep at the centre of parents' lives suggesting that if they run errands at the weekends with the child, they might be depriving their infant of needed sleep. Mayer argues that this kind of popular book feeds into a conception of mothering suggesting the best and 'good' mothers are those who are constantly, fully and only devoted to activities that revolve around their children. A multitude of such good mothering discourses possibly permeates modern society conflicting with a woman's organic experiencing and potentially creating tension between her ideal self, her perceived self and her true organic experiencing self.

The physical side of well-being and the postpartum

On the practical, physical side of well-being and the working conditions of the postpartum the AT is significant because of its concern with an aligned, flexible and free HNB-relationship. Women look down at their babies during many activities and the potential for developing habitual FHP seems real along with the tension consequences and loss of physical well-being due to habitual FHP. These AT-benefits were articulated by participants in Study 1 (section 6.3, ST 'Discomfort, pain and awareness' and ST 'Crunched and hunched') and were also touched upon by some Study 2 participants. The impact of FHP is illustrated by Hansraj (2014):

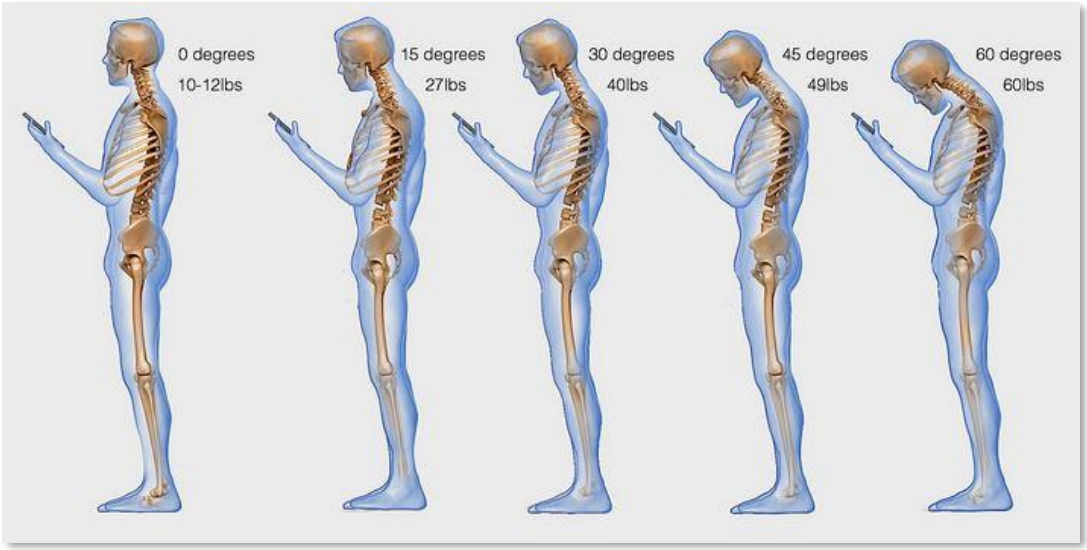


Figure 9.5 The weight taken by the spine increases as the neck flexes. Hansraj (2014)

Likewise, the significance for maternal back care and intervertebral disc care was identified as a theme in this thesis and the potential significance of the AT in this realm seems a valid claim, also in light of the evidence base (the ATEAM and ATLAS studies). Simply put, it is suggested here that it makes a difference if a mother sits collapsed over her baby while feeding, compromising her breathing (and other systems) or if she sits with ease and awareness in an upright, 'lightened up' flexible state and position (Cohen et al., 2015) and in touch with herself.

9.3 Self-care self-efficacy

This integrated discussion concludes where the thesis began: with the term self-management as part of its narrative spine and the unclear usage of the word in the healthcare literature. Eller et al., (2016) have explored the usefulness of the concept of *self-care self-efficacy* by analysing empirical studies published between 1996 and 2015. Their concept analysis revealed that the word self-management is frequently used synonymously with self-care or self-efficacy. These authors note the lack of precision and consistency regarding terminology in the field and that the terms are also used interchangeably or overlap with the term self-management. They define *self-care self-efficacy* (SCSE) as the adaption of the self-efficacy concept in the context of self-care but discern that nowhere did they locate in the 80 papers that were included in the synthesis a development or clarification of the concept. Target groups of the papers in the review included patients who were chronically ill (cancer, chronic pain, kidney transplantation, heart failure, diabetes). Again, it seems that the term self-

management in the mainstream health literature means 'managing chronic health issues alone or by oneself'. Eller et al.'s paper cites Robertson, Hudleston, Porter et al., (2013:51) who state that,

> *'SCSE is one's perceived ability to perform relevant self-management tasks required to effectively manage chronic disease.'*

This definition seems dualistic separating the self from the disease and raises the question: if someone has a chronic disease, where does the disease start and the person end, or the person end and the disease start? In a similar vein, The Chronic Disease Self-Efficacy Scale (CDSES) measures a patient's ability to manage illness and Robertson et al., (2013) used it to measure patients confidence in performing specific self-care tasks needed to manage health. This begs the question as to whether activities such as breathing, moving and eating also count as activities to manage health. These examples are cited less as a critique of other researchers work but more to highlight the different understanding that proponents of the AT have on the conceptualization of the term *self-management* or *use of the self.* The holistic understanding includes the whole individual with the self as the acting agent managing the *person* – not some thing – such as a disease or health. A holistic take on illness and the self benefits from formal mindfulness practice as Siegel (2013) suggests: tolerating discomfort, anchoring attention in the present and staying with negative emotions. From practical AT teaching experience, working with someone who is experiencing discomfort or pain, the first helpful step is to support them in accepting it and reducing psychological resistance and negative narratives with oneself. That is, inhibiting one's reactions. This usually results in a less unpleasant pain experience by the end of the lesson.[72]

Hughes (2021) notes that despite the global shift in health policies emphasising self-care interventions, there is still much research required to ascertain how safe and effective various available self-care interventions are. Again, the different paradigms between the AT understanding of looking after oneself and the mainstream health care realm become apparent. Taking AT lessons falls within what Bowen et al., (2009) suggest counts as an *intervention:* any programme (service, policy, or product) that intends to influence or change people's social, environmental, and organizational conditions as well as their choices, attitudes, beliefs, and behaviours. Working on oneself using the AT principles does not fall within this description. Outside lessons, using the AT employs conscious awareness of one's

[72] **Reflexive footnote**: I fell and broke my left arm in February 2021. Integrating the pain (not bemoaning or resenting it) seemed to be my response. I didn't 'have' pain, the pain was part of me as was a new body part: the clunky, limiting, heavy plaster cast on my injured arm.

own *use* to self-care by recognising adverse self-management habits with the AT principles. It is hard to see how such a process could be anything other than *safe*.

Nevertheless, safety was considered in relation to AT lessons in the ATEAM and ATLAS studies in terms of adverse effects. No adverse events were reported for AT lessons in the ATEAM trial. The ATLAS trial, MacPherson et al., (2015) considered in the study protocol adverse events such as transient dizziness during a lesson or tiredness beginning one or two hours after a lesson as well as muscle-aches akin to post-exercise aches. No safety issues related to the AT lessons were identified in the published study. However, Kinsey, Glover and Wadephul, (2021) find data in papers included in a review looking at how AT lessons lead to psychological and non-physical outcomes suggesting that the teaching of AT could cause distress for people if difficult emotions are not appropriately managed by teachers. Letting go of very ingrained habits led to a sense of destabilisation or loss of control in two included studies of performers as they changed their way of responding. Existing responses were seen as a type of self-protection and coping strategy leading to struggles when modifying the responses. Additionally, these authors found in their review that there could be the issue of people feeling uncomfortable if they are not benefitting or do not feel able to apply the practice to their everyday life.

To conclude this section, a SCSE definition seen from the psycho-physical educative viewpoint is tentatively suggested:

> *The perceived ability and belief that the principles of the AT can be used to self-care with conscious awareness through modifying disadvantageous self-management habits in everyday activities to benefit psycho-physical well-being.*

9.4 Conclusions

The fieldwork of this thesis has explored and shed some light for the first time on how women use the Alexander Technique in the postpartum. The IPA analysis of Study 1 showed in detail the potential relevance for postpartum women with experience of the method for rest and typical postpartum activities. The role of awareness for using the AT in these activities was central. Study 2 explored the potential of online input as a self-care package drawing on the principles of the Alexander Technique for mothers who have not had AT lessons. The package was acceptable to the participants and the results of this modest feasibility study offer a platform for future work online on how postpartum women (and indeed other groups) could benefit from applying the AT principles without personal access to qualified teachers and

hands-on work. Both studies highlighted the possibilities that the AT offers for conscious self-management modification to benefit psycho-physical well-being.

The necessity for such an approach was identified in the systematic literature review chapter which showed that there is little evidence for effective treatments for the common issue of LPP in the postpartum and that the topic of LPP after birthing is under-researched. Furthermore, the terminology in this field is unclear and may be playing a role in not addressing the issue. The AT approach is not a treatment that would deal with a mother's localised back pain but would address her general *use*. One contribution of this thesis is, therefore, to open up the field of pregnancy-related BP for the Alexander Technique as it seems to have the potential to contribute towards solving the issue as a holistic self-management method that enables conscious self-care. The possible benefits from the studies presented in this thesis are putting the following sequence and course of action on the map: a) heightened self-awareness of detrimental *use*, b) coming more in touch with oneself through this process and thus enabling c) decision-making to self-care.

The potential of filling some gaps in dealing with pregnancy-related LPP as well as wider aspects, issues and demands unique to the perinatal phase seems given through the AT. The AT is, as already suggested, (section 3.3) likely to be more helpful with *use*-related NSLBP and less so directly with PGP although lessons may reduce vulnerabilty to PGP; this is a realm that could benefit from research. The mother as a complex individual in a potentially challenging phase of life was the subject of this thesis, not just an *aspect* of her or *an issue* she might be having in the postpartum. This approach contrasts strikingly to postpartum research studies which focus on PND, BP, perineal trauma or fatigue. The broadness of the findings of the positive effects of the AT is also a contribution of this thesis pointing to the realm of psycho-physical re-education with its manifold potentials.

Reflexive box:

On a personal note, I have spent the last 3,5 years studying for this PhD with extensive hours at my laptop. Using the Alexander Technique while writing my thesis has meant that I never experienced tension issues such as back pain, neck and shoulder issues while working. And for that too I am deeply grateful. I conclude with words not from F.M. Alexander but from C.R. Rogers (1961:pos:618 ebook) which seems though, nevertheless to summarize how the Alexander Technique has accompanied me on my PhD journey:

'Life, at its best, is a flowing, changing process in which nothing is fixed.'

9.5 Strengths and limitations

Both fieldwork studies of this thesis aimed to explore how the principles of the AT can be used in the specific population of postpartum women. 19 participants freely shared their experiences within their particular life context and extensive data was created, this was a strength of the studies. The studies can claim to contribute to the AT literature in general and how psycho-physical education can be utilised in the postpartum in particular. What worked well in both studies was recruitment indicating that the AT community and interest in alternative methods in the postpartum 'online sphere' is vibrant, open and responsive. A new tentative mechanism of action was identified which has the potential to contribute to the discourse on how the AT works. Another strength unwittingly resulted from the pandemic as Study 2 was forced to go online. The results would not have materialised without me being compelled to take the step into the virtual world and away from the traditional hands-on work.

Like every study, these studies have limitations. The main limitation is the small sample sizes meaning findings cannot be generalised. The women, as noted, might also have been particularly receptive to methods such as the AT. Limitations of Study 1 have been considered in section 7.6. Certainly in Study 1 the recruited participants were enthusiastic about the AT and actively wished to talk about their experiences with it. Hence the study ignores people who have reservations about the AT. A further slight shortcoming of Study 1 arises from the exclusion of a significant volume of analysed data which included vivid detail and elements of the participants' postpartum experience (with and without the AT). Limitations of Study 2 have been considered in section 8.4.1. An unconsidered aspect of potentially improving Study 2 (if it went to a full study) would be automating sending the CR audio recording. In two cases the researcher forgot to sent it and the participants managed without it, using the videos on CR. However, the benefits of having such a resource were clearly articulated by the participants.

9.6 Implications for practice

A range of implications for practice emerge from this PhD and are now briefly considered according to different professional categories.

The Alexander Technique community

In December 2020 a paper based on SOT 1 of Study 1 was submitted to a peer-reviewed journal and is at present (April 2021) under review. There are plans to write further papers

and submit them to peer-reviewed journals, and, hoping for acceptance, to disseminate findings of Study 1 within the Alexander teachers community. These publications could be shared through the professional teachers' networks, websites and social media. Knowledge-sharing of the various findings from the two studies with the world-wide AT community with implications for colleagues' practice could result from this dissemination. Above all, implications for practice with postpartum clients and the potential of online work seems to stand out. Staying in contact with the Alexander principles when having appointments away from home is difficult for mothers and online offers seem a valid path to tread for those AT teachers who are open for online work.

Within the health-care community

Midwives, doulas, health visitors, obstetricians and GPs are professionals who might be interested in the findings of the two studies and how engaging with the principles of the AT can benefit postpartum women. Constructive rest seems the most significant Alexander Technique procedure for these professionals to potentially become familiar with. Setting up an online further-training programme for members of the Alexander teaching community who could then offer online courses to members of these professions might be a possibility. Especially nurses, health visitors, doulas and midwives could be enabled to support women in the postpartum by drawing on the AT principles and at the same time benefit their own well-being by participating in such a course. This could happen following a larger study based on Study 2. A limitation seems to be that this approach is best suited to women with a certain standard of well-being. For mothers experiencing PND, anxiety or having a tendancy to ruminate the content of Study 2 would not be ideal for reasons already considered in the Discussion of Study 2.

Mothers

Women will potentially be interested in the findings, especially those open to CAM. This group will be addressed through the publication of *The Postpartum Handbook; mindful maternal self-care with the Alexander Technique.* The potential of reaching mothers on a worldwide scale to offer a postpartum self-care package based on the AT via the internet also seems of potential interest. This might be a project far into the future and depending on results (if and when) a larger scale study based on Study 2 was done.

The researcher's personal implications

New clients will be introduced to the postural instructions *lighten up, relax, effortful* before introducing the Alexander *directions*. Listening more closely to clients concerning signs of increased congruence will become important and gently aiming to bring such things to clinets' conscious awareness. The potential and significance of using the AT while lying in semi-supine with pregnant clients and the significance of rest will be flagged up.

9.7 Theoretical implications

The concept of *use affects functioning* is only rudimentarily present in mainstream healthcare. Especially in the BP realm, high incidences worldwide have already been mentioned and the AT and its principles has relevance in this field. There also seems to be a case for pushing for acknowledging this theoretical concept via publications with wide practical implications for dealing with BP (and other realms) if the concept became more recognized. A further theoretical implication that has emerged from this thesis is the need for a clearer conceptualisation of the term *self-management.* There also seems to be a need to address the lack of clarity regarding terminology in the field of postpartum LPP.

9.8 Implications for further research

In the following areas are sketched in which further research could develop from this thesis.

Findings from Study 1 and 2 suggest that the Alexander Technique warrants further research as an approach to supporting perinatal self-care and well-being. There is a need to understand *which* elements of the AT are particularly important to mothers, *what* supports them best. This could be explored through a variety of qualitative study approaches, a phenomenological approach might be the most appropriate. Focus groups and grounded theory might also be promising avenues of research.

Further research might illuminate in general what the processes of the AT are; there is much to be understood in this area and Kinsey et al., (2021) have suggested two main causal pathways of eight evidence-informed theory statements on how and for whom non-physical outcomes may be generated by AT lessons. These points suggest co-development of research projects by researchers co-operating with AT teachers. The role that learning the AT could play in the perinatal phase to develop skills to create conditions conducive to restorative sleep and prioritising constructive daytime rest is also an identified area that deserves research. Especially understanding how the different modes of attention

play a role in pregnancy-related insomnia and PND seems to be an area calling for further research.[73]

A larger study based on Study 2 with a longer period of recruitment leading to higher participant numbers and also targeting minority groups seems warranted to learn more about how women could benefit from drawing on the principles of the AT in the postpartum. Why stratifying participants to the ages of their babies would be useful has already been mentioned. The results would potentially reveal more about the different needs of women at different stages of their first 12 postpartum months. The results of such a study could lead to an international AT-based programme for mothers. Reaching postpartum women via the internet may eventually be the main outcome of this PhD. An online programme for postpartum women based on the AT seems to offer potential. The temporal factor might play in here: learning to apply the AT principles during pregnancy would be a different approach than a course designed for the postpartum.

There seems to be research potential in understanding what the working conditions of the postpartum mean for women and there is a need to develop this concept. This would involve research attention by studying *the postpartum as a whole* (and a mother as a whole person) and not just aspects of the postpartum such as BP or PND. A grounded theory approach to research could be a possibility here. A pregnancy-related quantitative BP study with the AT nevertheless seems warranted which could potentially put the method on the map for dealing with this complaint.

There are also conceptual questions around the area of the self and around congruence, as hypothesized. Research into exploring whether taking AT lessons, training to become a teacher or teaching the AT increases congruence seems to warrant research attention.

Contribution to knowledge

The AT has existed for the last twelve decades mainly as a one-to-one teaching method. Drawing on the Alexander principles, however, does not rely on taking hands-on lessons with a qualified teacher as Study 2 suggested and as numerous colleagues woldwide are discovering online during the pandemic. Alexander himself discovered the principles and

[73] **Reflexive footnote:** I remember lying awake at night for hours in 1994 during my third postpartum. The older children slept deeply, no-one needed a drink, was ill with a cough or cold, or needed comforting after dreaming. The baby did not awake or need feeding. My state of arousal might have been an ideo-motor pattern where I was sub-consciously anticipating having to get up although I could have slept. Learning to intentionally shift awareness in this kind of situation might be a fruitful field of postpartum sleep research or sleep research in general.

their benefits without hands-on work. Falling back on the parallel to ideas that Rogers championed that have become widely accepted and recognized without being associated with him, I suggest there is a case for making a similar move with F.M. Alexander's discoveries. A path for this course as including more scientific recognition of Alexander discoveries as being key in such a step and establishing psycho-physical education as a field ahs already been argued (Hanefeld, 2016). Taking single lessons with a trained teacher would not have to compete with such a development. The present author does not doubt that single lessons remain the most effective way to convey AT knowledge but the traditional one-to-one approach seems to be contributing to limiting the reach of the method and enabling benefits of the Technique to become more widely known.

The AT has the potential to contribute to contemporary culture; this statement is, therefore, less a contribution to knowledge of this thesis rather a conviction that has developed and grown in me from writing it.

Concrete contributions to knowledge that have emerged from working on this thesis can be summarized as follows: How women with experience of the Alexander Technique use it in the postpartum has been researched for the first time and a further mechanism of action (that applying the principles increases congruence) has been suggested. The literature review revealed that the physical side of the postpartum is under-researched and PGP and NSLBP are not usually distinguished within the LPP realm. Pain tests need to be consequently introduced by practitioners to distinguish the complaints with different aetiologies which require different treatments. The terminology in the perinatal LPP field is unclear and resolution of this would benefit both women and practitioners working in the perinatel period. Finally, self-management, a term used in health-based research is in need of conceptual clarification.

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10 APPENDICES

10.1 Appendix 1: Complementary material, Ch.2

Details of the research of studies cited by Cohen et al., (2019) section 2.3.

Results from Kang, Rae-Young Park, Lee, et al's. 2012 study suggests that FHP during computer-based work may contribute to disturbing balance in healthy adults. In this study, 30 participants who worked at computers for over six hours a day (Gp.1) were compared to thirty participants who rarely work at computers (Gp.2). FHP was measured as was the centre of gravity and postural balance by using computerised dynamic posturography to determine the effect of computer-based work on postural balance. Results indicated that Gp.1 had a relatively more protruded head with extensive neck posture which tended more toward the anterior than that of Gp. 2. Postural imbalance and impaired ability to regulate movement in forward and backward *direction* were also found in this well-conducted, if somewhat small, quantitative study.

Kim, Kim and Jung's, (2013) study involved 46 young adult participants (in two groups, one with and one without FHP, as measured by the craniovertebral angle) to investigate the relationship between FHP and respiratory function. The results summarised in the study abstract suggests that FHP has a negative effect on respiratory function. The authors note the complexity of respiration involving aspects of the muscular, skeletal, and nervous systems and that abnormal posture can have a negative effect on respiratory function.

Postural instability is one of the disabling motor symptoms of Parkinson's disease, and patients are more susceptible to falling than healthy elderly adults (Nevitt, Cummings, Kidd, and Black, 1989). Jacobs, Dimitrova, Nutt, and Horak, (2005) found in a detailed, well-conducted, detailed trial with healthy older adults (11 control participants) mimicking the stooped posture of Parkinson's patients (7 participants) reduced stability margins in response to whole-body perturbations.

10.2 Appendix 2: Literature Review documents. Tables

Inclusion criteria of the reviewed RCTs 2008-18 PP LPP

Inclusion criteria RCTs 2008-18	VAS score for inclusion	Term delivery	Child weight	birth CI / vaginal (V)	pain provocation tests	BP length (wks) PP	birth no complications	Primiparous	BMI	age limits	recent gyn examination, results	school qualification	without epidural	language competence
Mohamed et al., 2018				V only	no				<30kg/m2	18 - 35		"moderate"	✔	
Sakamoto et al., 2018		✔		V only	no	birth to 4 wks PP	✔			20-40			✔	
Yazdanpanahi et al., 2016					no	BP, length not specified				18-40		middle school		
Kamel et al., 2016					no	>12		✔	<30kg/m2					
Schwerla et al., 2015	>5				no	>12 <61				18 - 42	✔			
Lee & Ko., 2015	>1	✔	>2.5kg	V only	no		✔							
Belz et al., 2014	>5				no	> 12				18 - 42	✔			✔
Chaudry et al., 2013					no									
Gutke et al., 2010					>2 positive	>3 wks or during pregnancy								✔
Recknagel et al., 2008.*	>5				no	> 12, < 25				18 - 46	✔			✔

Table 10.1 Inclusion criteria of the papers in the systematic literature review

Exclusion criteria of the included RCTs 2008-18 PP LPP

BP RCTs 2008-2018 exclusion criteria	history of fracture	neoplasm	previous spine surgery	other therapies	pregnancy	herniated disc	osteoporosis	autoimmune disease	osteoarthritis	neorologic disease	chronic inflamatory	psychological illness	acute inflammation	deep vein thrombosis	congenital spine	spondylosis	Bechterew	Sciatica	Systemic locomotor	upper/lower motor neuron lesion affecting lower limbs	CS	"physical difficulties"
Mohamed et al., 2018. (Egypt)			X			X									X	X						
Sakamoto et al., 2018. (Japan)												X									X	X
Yazdanpanahi et al., 2016. (Iran)	X					X						X	X	X								
Kamel et al., 2016 (Egypt)	X	X	X								X											
Schwerla et al., 2015 (Germany)	X	X	X	X	X		X		X	X	X											
Lee & Ko., 2015. (Taiwan)	none																					
Belz et al., 2014. (Germany)	X	X	X	X	X	X		X				X										
Chaudry et al., 2013. (Pakistan)	none																					
Gutke et al., 2010. (Sweden)	X	X	X		X														X	X		
Recknagel et al., 2008. (Germany)	X	X	X	X		X	X	X	X		X	X				X	X	X				

Table 10.2 Exclusion criteria of the papers in the systematic literatur review

Demographic data of the included RCTs 2008-18 PP LPP

Demografic data [treatment gp. (SD) / control gp. (SD)]	Age in years	occupation	education	weight/kg.	height / cm.	BMI
Mohamed et al. 2018 *	24.2 (1.5) / 23.4 (1.8)	housewives	no data	no data	no data	28 (1.8) / 27.8 (1.5)
Sakamoto et al., 2018	32.4 (3.8) / 30 (4.5)	no data	no data	no data	no data	no data
Yazdanpanahi et al., 2016	25.0 (4.2) / 27.0 (3.8)	no data	"33%" (?)	no data	no data	no data
Kamel et al., 2016	37.4 (5.8) / 37.46 (3.9)	no data	no data	75.73 (5.2) / 74.6 (3.85)	167.3 (5.63) /166.73 (4.5)	no data
Schwerla et al. 2015	33.9 (4.4) / 33.3 (4.3)	no data	no data	no data	no data	no data
Lee & Ko., 2015	29-40	75% full-time jobs	97% college degree	no data	no data	no data
Belz et al., 2014	33.8 (5,8) / 34.3 (3.7)	no data	no data	no data	no data	no data
Chaudry et al., 2013	20-40	77% housewives	no data	no data	no data	no data
Gutke et al., 2010	32.0 (2.0) / 30.0 (4.0)	no data	no data	no data	no data	no data
Recknagel et al. 2008	34.5 (3.5) / 34.4 (5.0)	no data	no data	no data	no data	no data

Table 10.3 Participants' demographics, papers in the systematic lit. review

CASP ratings of the included RCTs 2008-18 PP LPP

Table 1 – CASP – Critial appraisal – summary	Did the trial address a clearly focused issue?	Was the assignment of patients to treatments randomised?	Were all the patients who entered the trial properly accounted for at its conclusion?	Were patients, health workers and study personel 'blind' to treatment?	Were the groups similar at the start of the trial?	Aside from the interventions, were the groups treated equally?	What were the results? (SD bracketed) [p-values]	How large was the treatment effect?	How precise was the estimate of the treatment effect?	Will the results help locally?	Could the results be applied to the local population, or in your context?	Were all clinically important outcomes considered?	Are the benefits worth the harms and costs?		
Study on the effectiveness of a test-dependent osteopathic treatment with persistent post partum back pain. **Recknagel, Reutz & Schwerla, 2008**	yes	yes	yes	no	no	no	VAS after intervention 47,7 lower (23,8) in intervention gp. Control gp. 2,0 lower (9,7) after 8 wks. [P-value: <0.001] ODI: 17,4 lower (11,9) Control: 0,3 (5,8) after 8 wks. [p-value: >0.001]	can't tell	can't tell	yes	yes	yes	yes		
Specific muscle stabilizing as home exercises for persistent PGP after pregnancy. **Gutke Sjödahl & Öberg. 2010**	yes	yes	yes	no	see comment	can't tell	Home based stabilising exercises with focus on abdominal muscles, lumbar multifidus and pelvic floor muscles were no more effective in reducing BP related disability than the clinically natural course in women with PN PGP or LPP. Difference in frequency between the 2 gps. found at 3 mth. follow up in favour of treatment gp.	none	none	invalid	invalid	invalid	invalid		
Effectiveness of core stabilization exercises along with postural correction in postpartum back pain. **Chaudhry, Rashid & Shah, 2013**	yes	yes	can't tell	no	can't tell	can't tell	can't tell	can't tell	can't tell	can't tell	can't tell	no	can't tell		
How large is the success of a holistic osteopathic treatment of women with persistent unspecific back pain, postpartum? **Belz, Brix & Menges, 2014**	yes	yes	yes	no	yes	no	VAS score lowered in OMT gp. 4,2 points (2). CONTROL gp. 0,4 lowered (1,3) [p-value: <0,0005]	can't tell	can't tell	yes	yes	yes	yes		
Osteopathic Manipulative Therapy in women with postpartum low back pain and disability. **Schwerla, Rother, Rother, Ruetz & Resch, 2015**	yes	yes	yes	no	no	no	VAS baseline intervention gp.: 5.02 (1.97) END: 2.97 (1.71) CONTROL: baseline 4.70 (1.8) END: 4.43 (1.77) [p-values unclear!]	can't tell	can't tell	yes	yes	yes	yes		

Back massage intervention for relieving lower back pain in puerperal women. **Lee & Ko, 2015**	yes	yes	yes	no	yes	can't tell	VAS baseline intervention gp.: 5.02 (1.97) END: 2.97 (1.71) CONTROL: baseline 4.70 (1.8) END: 4.43 (1.77) [p-values unclear!]	can't tell	can't tell	can't tell	yes	no	can't tell
Efficacy of lumber mobilization on postpartum low back pain in Egyptian females. **Kamel, Neveen, Raoof & Tanty, 2016**	yes	yes	no	no	yes	can't tell	VAS baseline intervention A gp.: 7.2 (1.08) END: 2.4 (0.98)VAS baseline intervention gp. B: 7.26 (0.96) END: 3.66 (0.81) CONTROL: baseline 7.53 (1.06) END: 4.93 (1.27). Functional disability: baseline intervention gp. A: 57.14 (9.96) END: 22.81 (8.29) Gp.B Baseline: 56.72 (7.63) END: 33.45 (7.12) CONTROL: baseline 53.63	can't tell	can't tell	can't tell	yes	no	yes
Comparison of the Effects of Dry Cupping and Acupressure at Acupuncture Point (BL23) on the Women with Postpartum Low back Pain (PLBP) Based on the Short Form McGill Pain Questionnaires in Iran.* **Yazdanpanahi, Mehrnoush, Akbarzade, Zare & Azisi, 2016**	yes	yes	no	no	yes	can't tell	McGill Pain Questionnaire (sensory dimension): LBP intensity decreased in dry-cupping gp. from 22.8 (7.9) [p-value: 0.1] before intervention to 3.2 (2.7) 2 wks. Post-intervention. [p-value: 0.001] CONTROL: baseline: 23.2 (8.3) [p-value = 0.1] END, 2 wks later: 10.4 (4.0) [p-value = 0.001]	can't tell	can't tell	can't tell	yes	no	yes
Effects of a Pelvic Realigning Exercise Program Immediately After Child Delivery on Low Back Pain and/or Pelvic Pain in Postpartum Women. **Sakamoto, Nakagawa & Gamada, 2018**	yes	yes	can't tell	can't tell	can't tell	can't tell	In gp. R. with realigning device + exercise, pain reduction at week 1 postpartum,[p. value = 0.028] I gps. R & E pain significantly reduced fro day one to 3 mths. after delivery [p value = 0,015 an 0.029] no significant difference between gps. Between gps. [p = .42]	can't tell	can't tell	no	no	can't tell	can't tell
Efficacy of kinesiotape on functional disability of women with postnatal back pain. ** **Mohamed, El-Shamy & Hamed, 2018**	yes	yes	yes	no	yes	can't tell	VAS baseline intervention gp.: 6.95 (1.23). END: 2.9 (1.2) [p. value = 0.0001] CONTROL:baseline 7.65 (1.08). [ ] End: 6.4 (1.14) [ ] BPFS baseline intervention gp.:21 (4.82) [ ].End: 45.7 (4.96) [p. value 0.0001] BPFS baseline CONTROL: 19.7 (3.62)[ ] End: 24.2 (4.25) [p-value:]	can't tell	can't tell	can't tell	yes	no	yes

Table 10.4 CASP ratings of the RCTs included in the literature revie

Caldwell Framework ratings of the included RCTs on PP LPP 2008-18

Caldwell Framework	Recknagel et al (2008)	Gutke et al (2010)	Chaudry et al (2013)	Schwerla et al(2015)	Lee & Ko (2015)	Kamel et al (2016)	Yazdanpanahi et al (2017)	Sakamoto et al (2018)	Mohamed et al (2018)	Belz et al (2014)
Does the title reflect the content?	2	2	2	2	2	2	2	2	2	2
Are the authors credible?	1	2	1	2	2	2	2	2	2	1
Does the abstract summarize the key components?	2	2	1	2	1	2	2	1	2	2
Is the rational for undertaking the research clearly outlined?	2	2	1	2	2	2	2	2	2	2
Is the literature comprehensive and up to date?	2	2	1	2	1	1	1	2	1	2
Is the aim of the study clearly stated?	2	2	1	2	1	2	2	2	2	2
Are all ethical issues identified and addressed?	2	2	0	2	1	1	1	1	2	2
Is the methodology identified and justified?	2	2	1	2	1	2	2	2	2	2
Design clearly identified, and rational for choice of design evident?	2	2	0	2	1	2	2	2	2	2
Experimental hypotheses clearly stated and key variables identified?	2	2	1	2	1	1	1	1	1	2
Is the population identified?	1	2	1	2	1	1	1	1	2	2
Is the sample adequately described and reflective of the population?	2	1	0	1	0	1	1	1	1	1
Is the method of data collection valid and reliable?	2	2	0	1	1	1	2	2	1	2
Is the method of data analysis valid and reliable?	1	2	0	1	0	1	1	1	1	1
Are the results presented in a way appropriate and clear?	2	2	0	2	1	1	1	1	2	2
Is the discussion comprehensive?	2	2	0	2	0	1	1	1	1	2
Are the results generizable?	0	0	0	0	0	0	0	0	0	0
Is the conclusion comprehensive?	2	2	0	2	0	0	0	1	0	2
Total score	**31**	**33**	**9**	**31**	**15**	**23**	**24**	**24**	**24**	**31**

Table 10.5 Caldwell, Henshaw and Taylor, (2011). Critique framework

10.3 Appendix 3: Ethics approval for Study 1

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PRIVATE AND CONFIDENTIAL
Nicola Hanefeld
Faculty of Health Sciences
University of Hull
Via email

11 April 2019

Dear Nicola

REF FHS132 - How do women use their experiences of learning the Alexander Technique in the early postpartum?

Thank you for your responses to the points raised by the Faculty of Health Sciences Research Ethics Committee.

Given the information you have provided I confirm approval by Chair's action.

Please refer to the Research Ethics Committee web page for reporting requirements in the event of any amendments to your study.

I wish you every success with your study.

Yours sincerely

Dr Tim Alexander
Deputy Chair, FHS Research Ethics Committee

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PRIVATE AND CONFIDENTIAL
Nicola Hanefeld
Faculty of Health Sciences
University of Hull
Via email

28th May 2019

Dear Nicola

REF FHS132 - How do women use their experiences of learning the Alexander Technique in the early postpartum?

Thank you for submitting your Form C: Notice of Substantial Amendment to the Faculty of Health Sciences Research Ethics Committee.

Given the information you have provided I confirm approval by Chair's action.

Please refer to the Research Ethics Committee web page for reporting requirements in the event of any amendments to your study.

I wish you every success with your study.

Yours sincerely

Professor Liz Walker
Chair, FHS Research Ethics Committee

UNIVERSITY OF HULL

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10.4 Appendix 4: Preparation for Study 1

Pilot interview excerpt

On 19. March 2019 with T., multiparous mother, AT teacher

N. Your youngest is x years old - so I'm going to put you back to your postpartum – is your youngest a he or she?

T. Yea, a little girl, she's called [baby's name]…

N. I'm going to start with a very, very general question: tell me, what does the Alexander Technique mean for you?

T. umm, so…(pause). Does the question mean what it gives to me or what do I think it is?

N. It's a very broad question - however you understand the question…not so easy to answer…I understand…

T. I suppose to me it's very grounding and centring and it gives me a way to manage myself, that means that I feel more….umm, I suppose, just able to function at the better end of myself, yeah, I suppose that's pretty much what it means to me …yeah.

N. And when you say better functioning, what do you mean by that?

T. So I make better choices for myself, I'm a kinder person to myself then I'm kinder to other people, umm, I'm generally calmer and less liable umm - to go off on a tangent with some sort of emotional thing but also - but if I think back to before I did the Alexander Technique, I didn't have a tool for looking after myself, so I was flying here and there and everywhere and not really knowing how to even begin to look after myself. I'm not saying I do perfectly now but at least I've got some tools to try and make a decision about it.

N. okay, let's go to the postpartum: umm, can you tell me what postpartum well-being means for you?

T. Ha! Well, in respect to my last child well, umm, well, - okay. I am going to put that differently: I think it means feeling supported and cared for as a primary thing because I think, no matter what is going on with you physically, ultimately what makes a difference, it's about feeling nurtured and supported, I think that would go as a top priority, if you, like, feel nurtured and cared for. But there is also well-being as in: am I okay? Are you ill? Am I ok? Am I haemorrhaging? This, that and the other - that is obviously also part of well-being as well, you want to be physically well, but primarily you'd want to be feeling supported and nurtured, yeah.

N. And how did your Alexander Technique knowledge and experience play into your postpartum well-being?

T. Umm…(pause) so … certainly my teachers and colleagues were very supportive, especially my teachers because I was on the training course at the time. And I think in terms of my recovery, that really helped even though I had trauma, that massively helped my recovery. Umm… my personal practice fell by the wayside quite a lot, in terms of doing semi-supine, that said, all the principles I'd learnt, that really fed into me being able to take time myself to look after myself better: I'm not rushing moment to moment, that was helpful and I think that is reflected my daughter's character now because you're sure less panicky and less anxious generally, just generally calmer. That's really what it gave to me, so - …

N. You said you were not taking time for semi-supine but you were skilled at working on yourself, can you tell me a little bit more about that?

T. So you are still working on yourself, for example, if I was lying down in bed, I could definitely un-grip, I can, definitely could, release my extra tension, but then also moment to moment, when the baby started screaming, to have that sort of reaction: oh, 'she's only screaming' and you can not have that reaction as much, especially as a baby gets older, and that's what becomes really helpful: not to go into some shocking reflex myself. And then feeding, I think it's helpful for feeding: just types of positioning, just being able to think through it all actually: 'this is very uncomfortable' and having strategies, once practised, unpick that and make myself comfortable and then obviously with a C-section there's massive temptation to tighten, you are in pain constantly, this, the whole pain-issue side of things: how are we going to go about walking? How are we going to get up? How are we going to go about getting myself mobile again? This issue - I think it definitely helped, what helped most was having lessons again. Because, umm.. I think when you've got a pain issue, it's such a tightening stimulus, that's very difficult to unpick that yourself – it was really helpful to have hands-on work.

Report on Public Involvement

I spoke to five colleagues between 16.11.18 and 18.11.18 and one on 5.12.18 to inform my research and the postpartum self-management handbook. Information from an interview (September 2018) with my own three month postpartum client who took AT lessons during pregnancy is included in the following summary.

The main themes emerging were

1. Tension, doing and non-doing
2. Fear-pain-breastfeeding
3. Tips and tricks
4. General comments

Tension, doing and non-doing

"Unsustainable carrying techniques" – especially when the baby puts on weight.

Becoming aware of tense shoulders when carrying and putting babies down.

(Not!) holding the baby too tightly out of worry and over-care.

Not trying to '*get'* the baby to sleep.

Feeling 'crumpled up' 6 weeks after the birth.

Responsibility overwhelm – caring for a baby when the partner and older child are also ill.

Dealing with one's own tension when a baby cannot be calmed – avoiding an upwards spiralling increase in tension whereby the mother becomes agitated which increases the baby's agitation (or vice-versa). The importance of remaining connected to one's own calm.

Non-doing when pushing the pram.

Not jumping to react to a baby when it starts crying. Inhibiting this stimulus to do. Staying in contact with one's own needs and activities. Talking to the baby, while completing the task at hand and then deciding consciously to turn full attention to the baby.

Tension and anxiety as a result of a previous miscarriage.

Fear-pain-breast-feeding

The agony of breast-feeding, tightening up in anticipation beforehand (two women).

Avoiding shoulderand/or neck pain while feeding, posture and positions.

Tense shoulders as a result of breast feeding with a cyst - tortuous.

Tips and tricks

Change nappies on the floor to avoid worrying about the baby falling off the table. Move into play on the floor afterwards.

The importance of carrying in the centre-front and knowing about weight compensation/counter-balancing.

Having the means whereby one can decide to not have one's attention completely taken by the baby. Becoming aware of one's self and surroundings – 'moments of balance'.

General comments

The postpartum is a 'deep subject'

Visualizing what is going on at a bodily level.

'Monkey' is helpful with pelvic girdle pain. Crawling / all fours!

AT enables a connection to one's self in a way which, on the other hand, enables a better connection to the child.

AT helped with the ‘shock’ of motherhood, managing the myriad of emotions that come from being a new mother. Finding a way back to self in postpartum depression.

AT helped improve cervical prolapse after tissue damage from first birth. More effective than pelvic floor exercises.

10.5 Appendix 5: Documents for Study 1

Recruitment Study 1

a) Gatekeeper recruitment mail

Dear Ilia, dear STAT office,

as you are aware, research is being done at the University of Hull on 'Women's experiences of the Alexander Technique in pregnancy', (which in my case has moved to the postpartum), with Dr Lesley Glover, MSTAT, as my supervisor.

I'd be most grateful if you could send out the following email, flyer and information sheet (see attachments) in an email to all members. It requests participation in the research and asks teachers to kindly pass on the request to women who might be interested in getting involved in the research.

Thanking you for your work and help in advance, very best wishes, Nicola Hanefeld

(I have also sent a text for using on social media)

Information for social media:

Nicola Hanefeld, MSTAT, is looking for women in the UK who have taken (or are taking) Alexander lessons, women who are in teacher training or are teachers and have given birth within the last 9 months and are willing to be interviewed on their experiences. Pregnant women with AT experience are also invited to join the study and be interviewed later in the year. If you are interested or teach someone (or have taught someone) who might be willing to participate, please visit *www.speek.de/research* for more information. Please pass this link on to clients or ex-clients who might be interested in joining the research!

b) Recruitment email to STAT members

Dear Nicola,

Our member Nicola Hanefeld has kindly asked that we send the email below on her behalf. If you wish to reply to her, please do so ***directly*** at n.hanefeld@2017.hull.ac.uk.

Thank you,

Ilia Daoussi
General and Markering Manager

Dear STAT members,

Some of you may have been following my research into how the Alexander Technique is used by women in the postpartum phase.

Based on the rich findings of the interviews with women experienced with the AT, a new study is now going live. The content of this small scale feasibility study could be part of the practical content of the ***"The Mindful Postpartum Manual: Maternal Self-care with the Alexander Technique"*** which I ultimately hope to write.

I would like to recruit up to 20 women who are 4 – 13 months postpartum with no previous AT experience to explore the usability and acceptability of AT content conveyed via videos and the spoken and written word. One of the findings of the original study was the range of benefits mothers gained from constructive rest. The women will be asked in this study to practice semi-supine regularly for 14 days based on video input and written and spoken guidelines.

I would be grateful if you could pass the following mail (copy and paste it) to friends, family and acquaintances with babies. Recruiting via STAT worked *brilliantly* in the main study, let's see if people can be motivated via the STAT teacher's network again!

Very best wishes and thanking you in advance for your support,

Nicola Hanefeld, overseas MSTAT.
Email contact: n.hanefeld@2017.hull.ac.uk

Dear friends,

An Alexander Technique colleague is researching how women in the postpartum can use and benefit from the Alexander Technique. If you have a baby that is 4 – 13 months old and are interested in joining the research, please click here:

https://www.speek.de/research/22-allgemein/129-the-alexander-technique-in-the-postpartum

You have to have no prior experience of one-to-one hands teaching of the Alexander Technique to join the research.

Please pass this mail on to mums you know who might be interested in joining the study!

Best wishes,

xyz

STAT © 2020

c) Email to send to clients from an AT teacher:

Dear xyz, an Alexander Technique colleague of mine, Nicola Hanefeld, is doing a PhD at the University of Hull. Her research question is **How do women use their experiences of learning the Alexander Technique in the early postpartum?**

She is looking for women to interview and I thought you might be interested in joining the research. Pregnant women are also invited to join and be interviewed later in the year. Find out more here: www.speek.de/research Best wishes, xyz

d) Flyer for sharing with clients before/after AT lessons:

An invitation to take part in research

UNIVERSITY OF HULL

How do women use their experiences of learning the Alexander Technique in the early postpartum?

Nicola Hanefeld, member of the Society of Teachers of the Alexander Technique (STAT), is looking for women who have taken (or are taking) Alexander lessons and have given birth within the last 13 months and are willing to be interviewed on their experiences. Pregnant women with AT experience are also invited to join the study and be interviewed later in the year.

If you are interested, please visit www.speek.de/research for more information.The researcher can be reached via email and is happy to ring you and answer questions about the research plans and send you further details.

Write to her at n.hanefeld@2017.hull.ac.uk indicating when she can best reach you.

e) Information sheet for women interested in joining the study

An invitation to take part in research

How do women use their experiences of learning the Alexander Technique in the early postpartum?

If you are familiar with the Alexander Technique and are pregnant or have recently given birth, you might be interested in participating in this research. The following gives you all the information you need to help you decide if you want to join in.

Who is doing the research? Nicola Hanefeld, Teacher of the Alexander Technique, member of the Society of Teachers of the Alexander Technique, STAT, as part of her PhD in Health and Social Care Studies the University of Hull.

What is the purpose of this study? The aim is to understand the role the Alexander Technique can play in meeting the potential challenges of the 'working conditions' of the postnatal period, especially with respect to self-care, well-being, typical activities like feeding and carrying the infant as well as infant interactions and dealing with sleep deficit.

What is meant by the ‚working conditions' of the early postpartum phase?

The 'working conditions' of the postpartum are understood to include the following: discomfort/pain due to healing after birthing, adapting hormonally (and otherwise) to the non-pregnant state including new family and partner dynamics, many hours daily spent carrying/feeding the baby and further infant care, fatigue due to nightly care work, possibly reduced social contacts due to time, lack of energy or baby-sitting issues.

These factors are being called the 'working conditions' of the postpartum in this study and will vary from woman to woman.

Structure of the study There are two parts to this research: an initial online survey and a semi-structured interview if you enter into the actual research. These steps are explained in the following:

A)The online survey includes a few short questions to find potential participants and takes only minutes to complete**.** In this first survey, I ask for your consent to collect data, your name, email address, UK telephone number(s), amount of previous AT experience: whether you are a client ('pupil'), an ex-client, student in teacher training or an Alexander teacher. I ask if you are pregnant at present. If so, the due date and if you have any children, how many. I ask if English is your first language (or if you have similar standard language skills).

The aim of this first survey is to find potential participants with similar demographics. A uniform group raises the quality and value of qualitative research. If you are not asked to take part in an interview, this is probably because your demographics differ from a majority of other potential

participants: for example, maybe you already have a child and several women who answered the survey are pregnant for the first time (or vice versa).

B) If you are chosen to join the study, **you will be asked to take part in a semi-structured interview** lasting about an hour, max. 70 minutes. This would be conducted personally, if possible and recorded. Otherwise, interviews will be done online, via Skype and recorded: The questions you will be asked are open-ended and non-directive, aiming to understand various aspects of your postpartum experience which possibly relate to your experience of the Alexander Technique. The researcher will adopt an empathetic, respectful, non-judgemental attitude.

Who can participate? To participate in this study, you must

- be over 18 years old
- have English as a first language (or equivalent language skills)
- have given birth within the last 9 months or will give birth within the next months
- have experience of learning the Alexander Technique from a member of the Society of Teachers of Alexander Technique (STAT) or you are in a STAT approved teacher training course or are MSTAT.
- have had a minimum of 10 lessons and be a UK resident

How much time will participation involve? Completion of the initial survey should take only a few minutes. If you enter into the actual study, you will be asked to participate in the interview, lasting a maximum of 70 minutes. The interview will be transcribed and analysed to answer the research question.

Will participation in the project remain confidential? Yes, information will not be disclosed to other parties outside the research group. Only the researcher and the research team will have access to the transcriptions of interviews and initial questions. Data from the initial questions will be treated confidentially. Responses from the interview will be used only for this study and, if additionally, anonymously in publications. The EU General Data Protection Regulation and the UK Data Protection Act will be adhered to.

Participation If at any time you feel uncomfortable about the data you have been asked to give, then you have the right to withdraw from the study. If you wish to withdraw, you will not be asked why. You can withdraw at any time prior to the data analysis stage, but not afterwards. Interviews will be transcribed for data analysis, so withdrawal is possible up to the end of the interview.

If you complete the initial survey, you will be provided with a receipt number. You are advised to quote this number in any communication should you wish to remove your data from this study. Data collected from this survey from women not participating in the study will only be deleted after the interview stage of the study in case someone withdraws from the interview stage. I'd then perhaps approach you, if necessary, asking you to participate. If you participate in the research interview you will be asked to provide a pseudonym. The interview transcription data will be stored for a maximum of five years and then destroyed. Your participation is voluntary, no reimbursement will be made for your time.

Potential Risks and Ethical Considerations Ethical approval has been gained from the Faculty of Health Sciences ethics committee, University of Hull. There is no risk associated with participation in the interview but there may be potential for discomfort arising during the

interview. In this case, you may take a break or decide to discontinue the interview. A 'sources of support' leaflet will be routinely provided at interview completion. If a participant discloses information which suggests that someone is at risk of harm then the researcher is bound to pass on this information. The researcher will talk to the participant about this and will discuss it with their supervisor. They may have to report the information, for example to the safeguarding team based within the participant's geographical area. As far as possible the researcher will let the participant know before action is taken. If a participant discloses information which suggests that someone is at risk of harm then the researcher is bound to passing on this information. This might be the safeguarding team based within the participant's geographical area.

What happens now? If you are interested in taking part in this study, please fill out the short online survey at: https://hull.onlinesurveys.ac.uk/womens-experiences-of-the-alexander-technique-in-the-post

At the start of the survey, you will be asked to give your consent to participate. I will contact you regarding the second stage of collecting data.

If you are chosen join the interview part of the study, the consent form for the interview will be sent to you via email. You will be asked to complete it, scan (or photograph) and return it to n.hanefeld@2017.hull.ac.uk If you prefer to do this via the post, this can be arranged. You will also be contacted to make arrangements for the interview.

Contact for Further Information If at any point in the study, including after you've completed the survey, you are concerned or wish to withdraw, please contact me or my supervisor so your response can be taken from the database. If you have any questions or complaints about this research, please feel free to contact either me or my supervisor:

Researcher: Nicola Hanefeld, MSTAT Email: n.hanefeld@2017.hull.ac.uk
Supervisor: Dr Lesley Glover, MSTAT Email: l.f.glover@hull.ac.uk

If there are any concerns about the way in which the study has been conducted then participants are free to contact the Associate Dean for Research, Prof Mark Hayter, M.Hayter@hull.ac.uk

This research is supported by a University of Hull scholarship, the F. M. Alexander Trust, registered charity No. 802856 and the German affiliated Teacher's Society of the Alexander Technique.

Thank you for taking time to fill out this questionnaire. It will enable me to recruit participants to research how women use their experiences of learning the Alexander Technique in the early postpartum. Upon completion you will receive a confirmation and a receipt number and I will contact you.

f) Sceening survey questions

If you have any questions, you can reach me at n.hanefeld@2017.hull.ac.uk

1. Your name:
2. Your email address:
3. Your UK telephone number(s):
    -
4. Amount of previous experience with the Alexander Technique:

- ☐ I am a client ('pupil')
- ☐ I am an ex-client
- ☐ I am in teacher training
- ☐ I am an Alexander teacher

5. If you are a client or ex-client, approx. how many Alexander lessons have you had?

- ☐ 10 – 20
- ☐ 21 – 30
- ☐ Over 30

6. If you are in teacher training, how far in are you?

- ☐ in my first 12 months
- ☐ 13 – 24 months
- ☐ in my final year

7. If you are an Alexander teacher, when did you qualify?

- ☐ less than a year ago
- ☐ 12 – 24 months ago
- ☐ over 2 years ago

8. If you are pregnant at present, when is your due date?

9. If you already have children, how many do you have?

- ☐ one
- ☐ two
- ☐ more than two
  - ○

10. If applicable, when did you last give birth?

11. Is English you first language?

- ☐ Yes
- ☐ No

If no, do you count yourself as fluent in English?

- ☐ Yes
- ☐ No

THANK YOU for completing this questionnaire!

Documents for participants of Study 1

a) Consent form Study 1

Research

How do women use their experiences of learning the Alexander Technique in the early postpartum?

CONSENT FORM for interviews with researcher Nicola Hanefeld

Thank you for agreeing to participate in this research study. It concerns itself with how women use their experiences of the Alexander Technique in the early postpartum. An interview conversation will be used to explore the topic and this consent form refers specifically to your participation in this interview. Please tick as appropriate:

☐ I understand that all information gathered in the interviews will be documented using pseudo-names only and be treated confidentially.

☐ I have read the information leaflet about this study, have had the opportunity to ask further questions about it and my participation.

☐ I am aware that my participation is voluntary and I can withdraw at any time.

☐ I consent to the recording of my interview and using (anonymous) quotes in the resulting research and publications.

☐ I agree with the transcription of my interview being shared with other researchers involved in this project at Hull University.

I understand the above points and agree to take part in this study:

Name: Signature: Date:

(Please print clearly)

If you have any questions, please contact me: n.hanefeld@2017.hull.ac.uk

b) Support sheet for participants

Women's experiences of the Alexander Technique in the postnatal phase

Sources of support

If anything that came up in the interview has upset of distressed you there are several sources of support which you can access. This sheet has been designed to cover a range of issues that might relate to your postnatal phase.

Home-Start is one of the leading family support charities in the UK. Home-Start volunteers help families with young children deal with the challenges they face. We support parents as they learn to cope, improve their confidence and build better lives for their children. www.home-start.org.uk Tel: 0116 464 5490
Email: info@home-start.org.uk

The following organisations might also be helpful for you:

MIND is a leading mental health charity: www.mind.org.uk Infoline: 03001233393

The **Association for Post-natal Illness** provide support for mothers. www.pni.org.uk Helpline: 0207 386 0868

The National Childbirth Trust is the UK's leading charity for parents, offering support during pregnancy, birth and early postpartum www.nctprgnancy and babycare.com Tel. 0300 3300 770

Relate is a national charity offering support for couple who are having difficulties in their relationship

www.relate.org.uk

Family Lives www.familylives.org.uk offers supportive non-judgemental support for you parents to go for support. Helpline: 0808800 222

Pre and Postnatal Depression Advice and Support **(PANDAS).**
http://www.pandasfoundation.org.uk

Office: 01691 664275Email: contact@pandasfoundation.org.uk

The **NHS** also provides information: www.nhs.uk/conditions/social-care-and-support-guide

The Samaritans are available 24hrs, day and night. Phone number: 116 123.

www.samaritans.org

Email: jo@samaritans.org

Prompts and probes used during the interviews:

What was that like for you? How did that work? Can you give an example of that?

Can you say more about that, especially your mood in connection with XYZ?"

Could you describe that please? What else does that make you think of?

I am interested in ABC, can we go back to that? Please tell me a bit more about your experience please.

c) Individual and cross-case mindmaps to identify individual SOTs

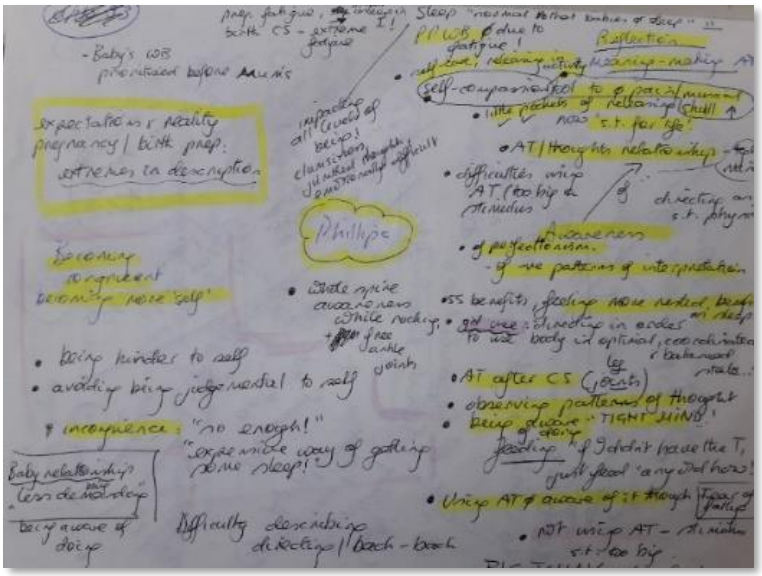

Figure 10.1 Two individual mind-maps to identify SOTs

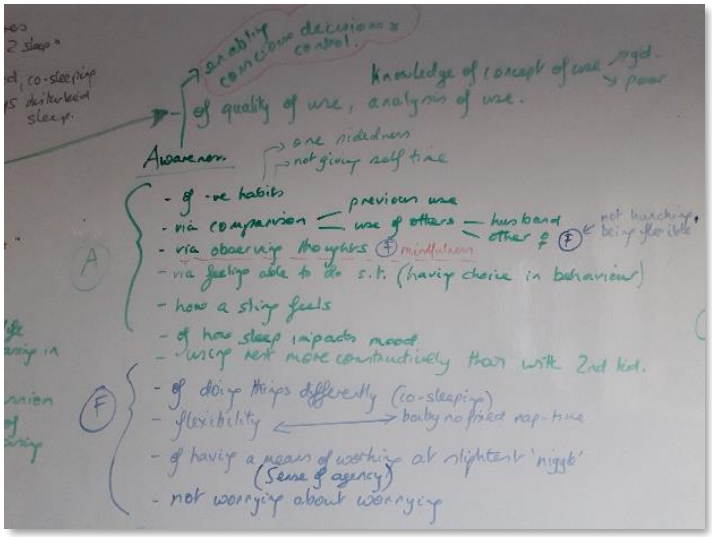

Figure 10.2 Photo of part of the white board mind-map to identify cross-case SOTs: Awareness (Annie, 'A' and Fiona, 'F')

Summary of the research diary kept during Study 1 data collection

I kept a research diary from April 2019 (when I started interviewing) to the end of 2019 (after the eighth and final interview). It was used as part of quality through reflexivity. This diary has just over 3400 words and is available in full if required. In the following, I give a summary of its contents and what I gained from keeping it. The diary focused on the inter-personal experiences of the interviews and my experiences of transcription and starting analysis.

The most obvious process that the diary reveals through the months of data collection and keeping it is how I developed as an interviewer. I felt increasingly free to ask people to share more detail about their experiences of using the Alexander Technique and the postpartum. Whereas I didn't want to ignore how somebody felt *outside* the realm of research, my task was to understand how they were using the Alexander Technique in their life situation and not other issues they might be having. That meant making split-second decisions to not go off on a tangent. For example, in the second interview the interviewee told me she had lost a close relative. Another interviewee answered the question what postpartum well-being means to her so briefly *('surviving')* that it was clear she had had numerous issues and I was initially flummoxed. In those moments, I sensed we had touched areas that had been extremly challenging. I initially didn't find such situations easy to navigate and being authentic, saying I understood that there was a difficult phase, was the best way to deal with them and get back on track. Lived experience is not compartmentalised and the more interviews I did the more relaxed I felt with navigating the research interview setting. This meant allowing space for experiences that were not to do with the research question, allowing rapport to develop, but feeling free to come back to the main theme and gently but clearly asking participants to share their experiences on using the Alexander Technique in the postpartum. The diary reveals how it was intially difficult for me to shift from verbalising someone's experience, offering general empathy (and a space to reflect) as I was accustomed through years of using a person-centred approach. I ended all my interviews with a humbling sense of having truly been in contact with the women and it was a deeply enriching experience interviewing them. There was also a process of becoming more self-confident in using technology, that the online interviews *worked* and that my recording devices were *working*. In my first couple of interviews I did experience a

bit of tension and worry if this side of things was functioning. Towards the end of the year that was no longer an issue for me.

Re-reading my research diary made me remember a surprising personal experience I had when I started transcribing the interviews which I'd forgotten. This was the dramatic and sudden overwhelming tiredness that would overcome me after only about 20 minutes of transcription work. I also repeatedly document that how I experienced someone in an interview was different from my perception of someone through analysing an interview. My subjectivity came into focus through this.

The research diary also documents my first steps with analysis, how intense it was and how long it took to become familiar with the single interview as well as my uncertainties related to the analysis process. This changed as my experience grew: my own distance to the analysis process seems to be documented in an entry from 24.9.2019. *'Note that I am v. detached during analysis; don't have to prove anything.'*

Themes omitted from analysis

Table 10.6: Excluded themes from the IPA

Omitted superordinate themes	**Sub-themes**
The Alexander Technique	AT language and jargon in use at the present
	Self-concepts as an ‚AT person'
	Sense-making of the AT process
	Why participants started the AT
Pregnancy and giving birth	Pregnacy experiences
	The birthing experience
	Recovering from birthing injuries
Significant others	Partners, family members and friends

10.6 Appendix 6: Ethics approval of Study 2

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w: www.hull.ac.uk

PRIVATE AND CONFIDENTIAL
Nicola Hanefeld
Faculty of Health Sciences
University of Hull
Via email

8th June 2020

Dear Nicola

REF FHS261 - How usable and acceptable are the practical parts of "The Mindful Postpartum Manual: Maternal Self-care with the Alexander Technique*" to women without prior experience of the Alexander Technique?

Thank you for your responses to the points raised by the Faculty of Health Sciences Research Ethics Committee.

Given the information you have provided I confirm approval by Chair's action.

Please refer to the Research Ethics Committee web page for reporting requirements in the event of any amendments to your study.

I wish you every success with your study.

Yours sincerely

Professor Liz Walker
Chair, FHS Research Ethics Committee

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PRIVATE AND CONFIDENTIAL
Nicola Hanefeld
Faculty of Health Sciences
University of Hull
Via email

2nd July 2020

Dear Nicola

REF FHS261 - How usable and acceptable are the practical parts of "The Mindful Postpartum Manual: Maternal Self-care with the Alexander Technique" to women without prior experience of the Alexander Technique? Form C: Notice of Substantial Amendment.

Thank you for submitting your Form C: Notice of Substantial Amendment to the Faculty of Health Sciences Research Ethics Committee.

Given the information you have provided I confirm approval by Chair's action.

Please refer to the Research Ethics Committee web page for reporting requirements in the event of any amendments to your study.

I wish you every success with your study.

Yours sincerely

Professor Liz Walker
Chair, FHS Research Ethics Committee

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@UniOfHull /UniversityOfHull universityofhull

10.7 Appendix 7: Documents for Study 2

Recruitment documents

a) For Mumsnet, Net mums and Mumblers

An invitation to take part in research taking place at the University of Hull:

Maternal self-care in the postpartum with the Alexander Technique

Research (exclusively online) is being done on women's experiences of the postpartum. The postnatal period is an under-researched and a potentially challenging phase for mothers.

If you have a baby between 4 and 13 months old,

you might be interested in participating in this research. Please follow the link for more information:

WWW.SPEEK.DE/RESEARCH/THE-ALEXANDER-TECHNIQUE-IN-THE-POSTPARTUM

The recruitment advertisment:

Calling postpartum mums! Join research taking place at the University of Hull (1 Post)

HanefeldNicola2020 Tue 09-Jun-20 14:49:46 **Add message** | Report | Message poster | Quote

Do you have a baby between 4 and 13 months old? :-) You might be interested in participating in this research on using the Alexander Technique to avoid tension issues during feeding & carrying. The following link gives you all the information you need to decide if you want to join the study.
www.speek.de/de/research/22-allgemein/129-the-alexander-technique-in-the-postpartum

b) Gatekeeper email

Dear Ilia, dear STAT,

I am now in the middle of my 3rd year into the research being done at the University of Hull on women's experiences of using the AT the postpartum.

I'd be most grateful if you could share with members a request for helping with recruitment (below) in the next piece of research which is being done exclusively online. I have also added a short text for STAT's facebook page and an appropriate photo.

Thanking you for your help in advance, very best wishes,

Nicola Hanefeld, overseas MSTAT, PhD candidate, University of Hull.

Dear STAT members,

Some of you may have been following my research into how the Alexander Technique is used by women in the postpartum phase. Based on the rich findings of the interviews with women experienced with the AT, a new study is now going live.

Ultimately, I aim to write *The Postpartum Handbook: Maternal Self-care with the Alexander Technique*. The content of this small scale feasibility study could be part of the practical content of the handbook. I would like to recruit up to 20 women who are 4 – 13 months postpartum with no previous AT experience to explore the usability and acceptability of AT content conveyed via videos and the spoken/written word. One of the findings of the original study was the range of benefits mothers gained from constructive rest. The women will be asked in this study to practice semi-supine regularly for 14 days based on video input and written/spoken guidelines.

I would be grateful if you could pass the following mail (copy and paste it) to friends, family and aquaintances with babies. Recruiting via STAT worked brilliantly in the main study, lets see if people can be motivated via the STAT teacher's network again!

Very best wishes and thanking you in advance, Nicola Hanefeld

Dear friends,

An Alexander Techniqee colleague is researching how women in the postpartum can use and benefit from the Alexander Technique. If you have a baby that is 4 – 13 months old and are interested in joining the research, please click here:

WWW.SPEEK.DE/RESEARCH/THE-ALEXANDER-TECHNIQUE-IN-THE-POSTPARTUM

You have to have no prior experience of doing the Alexander Technique to join the research. Please pass this mail on to mums you know who might be interested in joining the study! Best wishes, Xyz

c) University intern recruitment mail

PhD candidate Nicola Hanefeld from the Faculty of Health Sciences is conducting a feasibility study to do with maternal well-being. She is recruiting women for her study who have babies aged 4 - 13 months. Study details are here.
If you know a mum who might be interested in joining the study, Nicola would be most grateful for support in recruiting. You can use the following text for your email:

Dear xyz, exciting research is going on at the University looking into maternal well-being during the postpartum. For details of the research, how to join, what participation involves and how to contact the researcher, please follow this link:

https://www.speek.de/de/research/22-allgemein/129-the-alexander-technique-in-the-postpartum
Best wishes
Xyz

DOCUMENTS FOR PARTICIPANTS OF STUDY 2

CONSENT FORM STUDY 2

UNIVERSITY OF
Hull

Research

Maternal self-care in the postpartum phase with the Alexander Technique

CONSENT FORM Researcher: Nicola Hanefeld, PhD candidate

Thank you for agreeing to participate in this research study. It concerns itself with an online self-care package based on the Alexander Technique and daily practice. Following 14 days of daily practice, you will be asked to fill out a survey regarding your experiences. This form refers specifically to your participation in this study.

Please tick the boxes as appropriate!

- ☐ I have read the information about this study, and have had the opportunity to ask further questions about it and my participation.
- ☐ I agree to sharing mobile phone number to enable contact with the researcher via Threema, Facbook Messenger or WhatsApp for this research only.
- ☐ I understand that information gathered from the survey will be treated confidentially.
- ☐ I am aware that my participation is voluntary and I can withdraw at any time upto the start of data analyis. Data analysis start is my last option to withdraw, if I wish to. I understand that I will be informed when data analysis starts.
- ☐ I consent to the researcher using anonymised quotes in the research findings and publications.
- ☐ I agree with the survey results and transcriptions being shared with other researchers involved in this project at Hull University.
- ☐ I agree to participating in a short online interview via Skype or a WhatsApp video call after completing the self-care package to share my experiences of it and give further feedback on the research.

I understand the above points and agree to take part in this study:

Name: Signature: Date:

(Please print clearly)

If you have any questions, please contact me: n.hanefeld@2017.hull.ac.uk Tel. 0049 151 20 60 43 57 on WhatsApp.

d) Information sheets for participants of Study 2 - sent by post and was 3 pages. (The required thesis formatting does not allow that layout.)

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MATERNAL SELF-CARE IN THE POSTPARTUM WITH THE ALEXANDER TECHNIQUE RESEARCHER: NICOLA HANEFELD. EMAIL: N.HANEFELD@2017.HULL.AC.UK
TEL. 0049 151 20 60 43 57

Dear *xyz*

many thanks for being prepared to join my research into how women use an online care package based on the Alexander Technique in the postpartum. There are five videos in the online package. You can tick off when you have viewed them:

- ☐ Introduction to the Alexander Technique
- ☐ Meet the researcher and postural directions
- ☐ Anatomy and breathing
- ☐ Constructive rest (short)
- ☐ Constructive rest (long)

When you have viewed all the films you can start your daily lying down *constructive rest* practice: The following helps you document it. On the third page there are guidelines on how to use the regular 10 – 15 minutes time with yourself. Please note in the following table the consecutive days/date when you did *constructve rest*:

START						

						END

If you don't always manage to do *constructive rest* on consecutive days, that does not matter. Take up regular practice again when it is possible.

We'll be in contact via xyz (it was WhatsApp in all cases) and I'll be aware when you have completed 14 days of practice so I can send you the link to the survey for your feedback.

Here is a summary of the postural directions (based on Cohen, et. al.,2020) you saw in the second video. Study aim: to become aware of when you are using the Effortful – Pull up and Relax directions unconsciously and, where appropriate, replace them with conscious *Lighten Up* directions.

Effortful – Pull up *Use muscular activity to pull yourself up to your greatest height for your head up, lift your chest, tighten all the core muscles in your torso you can think of holding a military posture, which looks really strong. Really work at it!*

Short version: pull yourself up to your greatest height using muscular effort.

Relax *Stand as you would if you were feeling tired and lazy; like it's the end of the day and nobody is watching and you do not really care about your posture. Let your head and chest feel heavy and let everything settle a bit downward.*

Short version: *stand relaxed and heavy and let everything settle down*

Lighten up *Have the idea that you want to go up that you are not going to do it with muscular effort. Instead let the ground send you up through your bones, and let your head float up on top of your spine. Notice that at the same time as you are going up you can also expand into width.*

Short version *allow your bones to send you up; let your head float on top of your neck.*

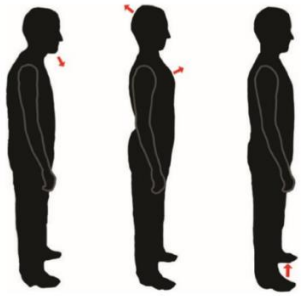


Figure 1. Illustration of the sort of posture participants adopted in response to the three different instructions. Left: Relax. Middle: Effortful. Right: Light.

14 days of constructive rest: doing the Alexander Technique while lying down

When your baby is napping during the day, take some time for yourself: lie down on the floor, grounded on the floor, use a book or books[74] under your head, hands on your tummy and legs up, feet grounded on the floor.

Let your thoughts become quiet. Become aware of your weight on the ground, where your body is in contact with the ground.

Then just notice where your body is at, where areas of tension are and… just send a kind of wish to the areas that are tense to release.

Think about your head going to the back of the room, feet spreading out on the ground and shoulders releasing, knees going up towards the ceiling, hands relaxing, your back melting into the floor… navigate around your body; notice how your body feels. If you feel tired, that's ok. Become aware of your breathing, allow it to become freer and deeper.

If your thoughts wander, come back to the present. Notice the length of your spine, your head on the book, your breathing. Navigate again around your body, observe your thoughts. If you become aware of unwanted thoughts… that's ok - let them go.

[74] The optimal number of books means your head aligns with your torso. Everyone is different. Experiment to find what is right for you so your head aligns best with your torso. See photo below.

You can invite your neck to be free to let your head go to the back of the room and let your back lengthen and widen. You can let your shoulders widen. Breathe. Repeat this process or parts of the process for about 10 – 15 minutes. There is no pressure to do it right. There is no right or wrong, you can just be.

Photo: courtesy, The Society of Teachers of the Alexander Technique

⇨ When you stand up again after about 10 – 15 minutes, take a moment to sense how you now feel.

c) Support sheet Study 2

UNIVERSITY OF HULL

SUPPORT SHEET – RESEARCH

Maternal self-care in the postpartum with the Alexander Technique

Sources of support

If anything that comes up during this study that is upsetting or distressing, there are several sources of support which you can access. This sheet has been designed to cover a range of issues that might relate to your postnatal phase.

Home-Start is one of the leading family support charities in the UK. Home-Start volunteers help families with young children deal with the challenges they face. We support parents as they learn to cope, improve their confidence and build better lives for their children. www.home-start.org.uk Tel: 0116 464 5490 Email: info@home-start.org.uk

The following organisations might also be helpful for you:

MIND is a leading mental health charity: www.mind.org.uk Infoline: 03001233393The **Association for Postnatal Illness** provide support for mothers. www.pni.org.uk Helpline: 0207 386 0868

The National Childbirth Trust is the UK's leading charity for parents, offering support during pregnancy, birth and early postpartum www.nctprgnancy and babycare.com Tel. 0300 3300 770

Relate is a national charity offering support for couples who are having difficulties in their relationship www.relate.org.uk

Family Lives www.familylives.org.uk offers supportive non-judgemental support for parents to go for help. Helpline: 0808800 222

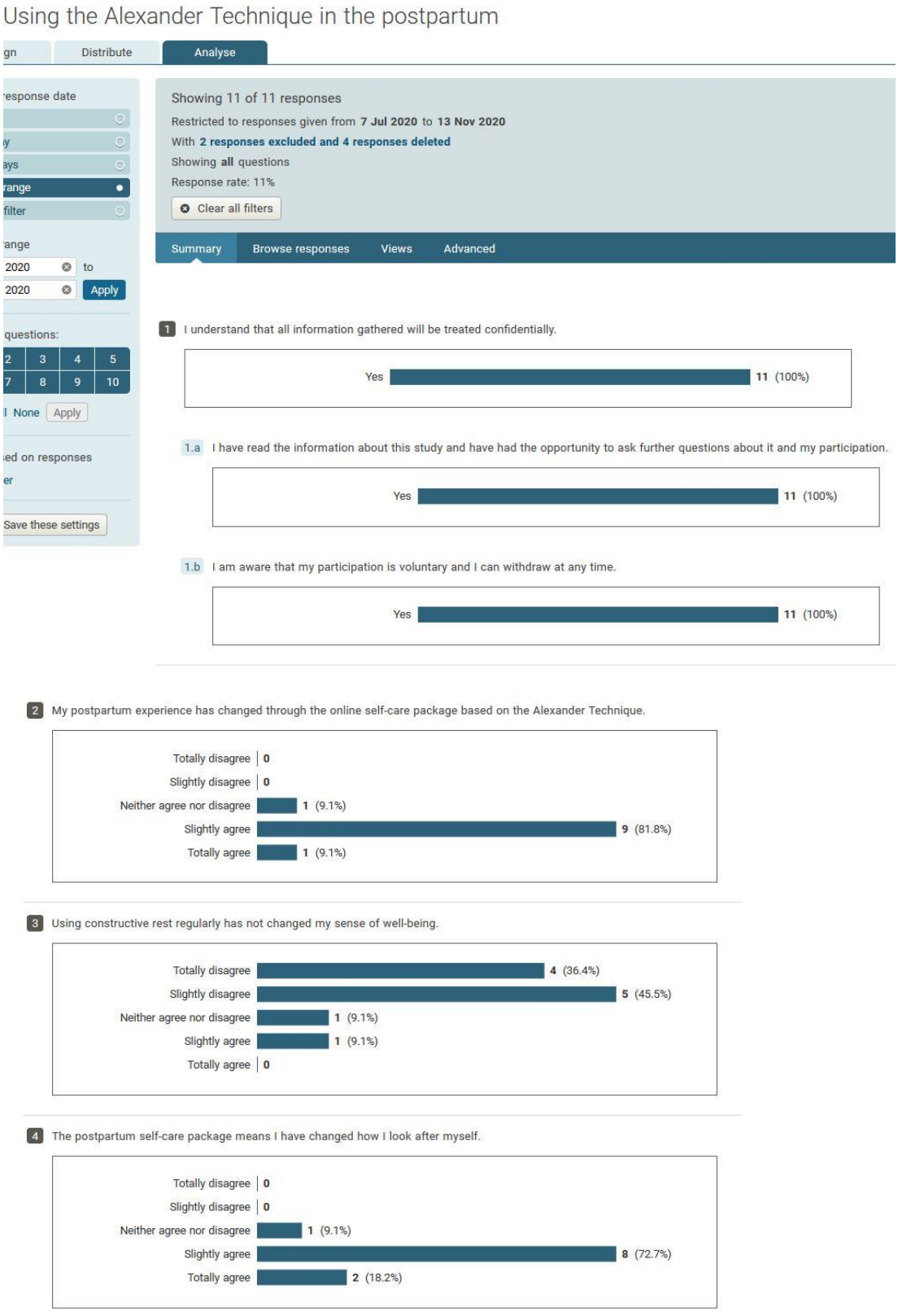
Pre and Postnatal Depression Advice and Support **(PANDAS).** http://www.pandasfoundation.org.uk

Office: 01691 664275Email: contact@pandasfoundation.org.uk The **NHS** also provides information: www.nhs.uk/conditions/social-care-and-support-guide

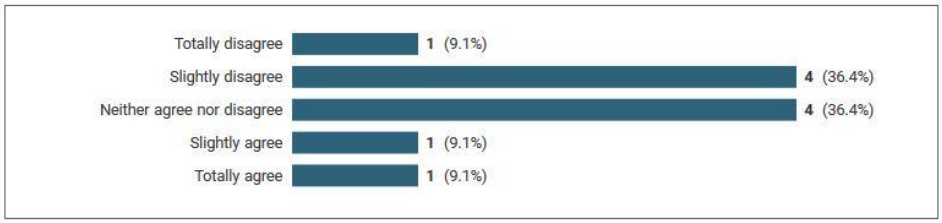
The Samaritans are available 24hrs, day and night. Phone number: 116 123.

www.samaritans.org Email: jo@samaritans.org

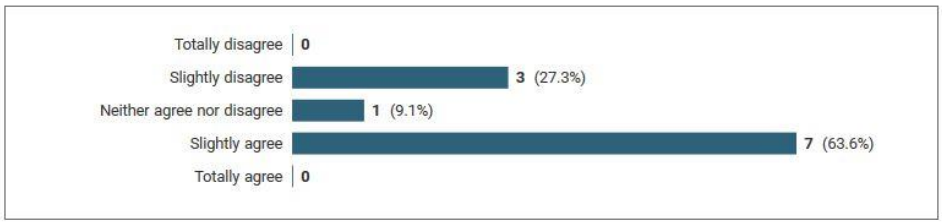
Likert-based questionnaire results, Study 2



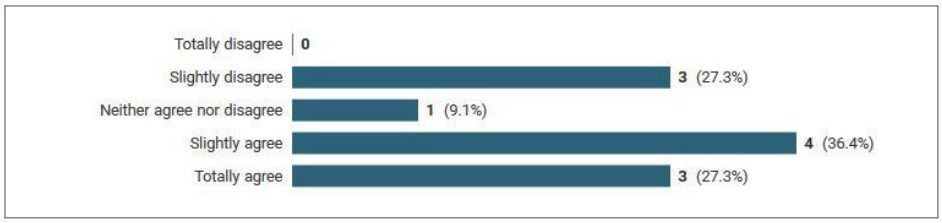
5 The postpartum self-care package has not changed the way I sit when I feed my baby.



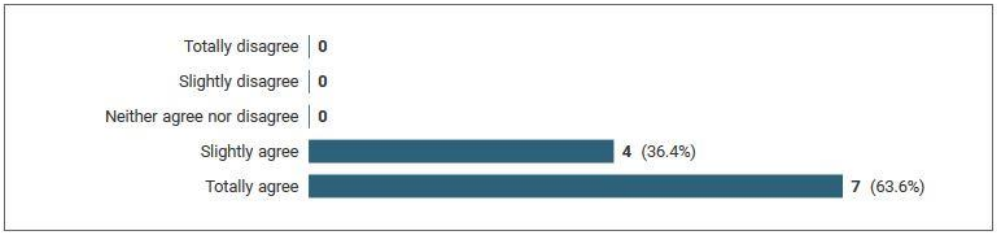
6 The postpartum self-care package has changed how I carry my baby.



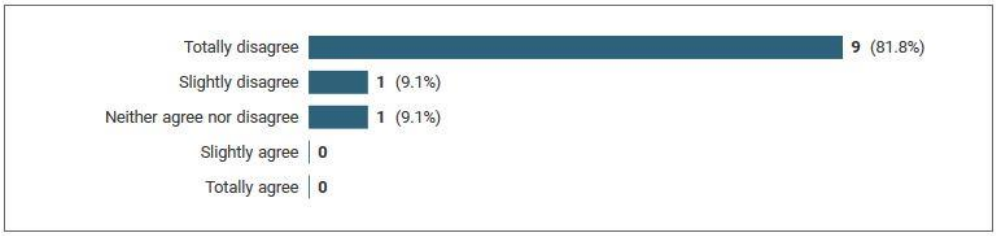
7 The postpartum self-care package has not changed my relationship to my baby.



8 The postpartum self-care package was easy to use.



9 The postpartum online package was not suitable and acceptable to me as a mother in the postpartum.



10 Do you think anything else has changed? Please share any thoughts in the space provided:

Showing all 10 responses Show less	
This has giving me the opportunity to push myself to have sometime for myself and have more energy when I am back with my baby. It would be interesting to find out if there is any other positions that would be helpful while breastfeeding as I tried few times without knowing and it helped	578095-578086-62766366
Taking the time to be aware of my body and quiet time without the baby has been a form of meditation for me, and has allowed me to reflect on my experience in the post partum period rather than just rushing around. Prior to taking part in the study I could not find 15 minutes per day just to 'be', I was always doing something I thought I needed to do. It allowed me to slow down and appreciate being in the moment	578095-578086-63193170
I am more aware of how I use my body throughout the day and am starting to remember to adjust as necessary. Note: I'm not breastfeeding my baby so didn't answer that question fully.	578095-578086-63555565
I try to be more conscious of taking time out but with three children especially during covid it's very hard	578095-578086-64251232
I realised how important it is to take some time out of the day to really look after myself and doing it very consciously. And also doing this helps to completely switch off, no phone/TV.	578095-578086-64947074
In the early stages of practice, I became more aware of my back pains immediately after constructive rest. Time of day was also a big factor in determining the effectiveness of constructive rest and my mood following practice.	578095-578086-65033815
I realised the importance of taking time out of my day to do sth for myself. Everything was new for me as a first time mum and I try to do everything as good as I can. Some days and nights have been difficult with a newborn/small baby but settling down to do constructive rest made me feel more relaxed and calm .	578095-578086-65131974
Every day things like house work, nap times would sometimes cause me unnecessary stress. I found this technique helped me to centre myself and focus more on what was actually important. On the days that I practiced the technique I would feel 'lighter' or more present. Hard to put into words but they were certainly better days.	578095-578086-65938074
It is really difficult to be mindful of posture. It requires a lot of effort not to snooze the alarm i made to complete the exercises. I most certain that the floor exercises were done in the bed after putting the baby to sleep.	578095-578086-67091560
I am more conscious of how my posture is when I am in different positions and also conscious of my breathing pattern.	578095-578086-67239082

10.8 Appendix 8: Photos

Photos showing the use of the hands in the Alexander Technique

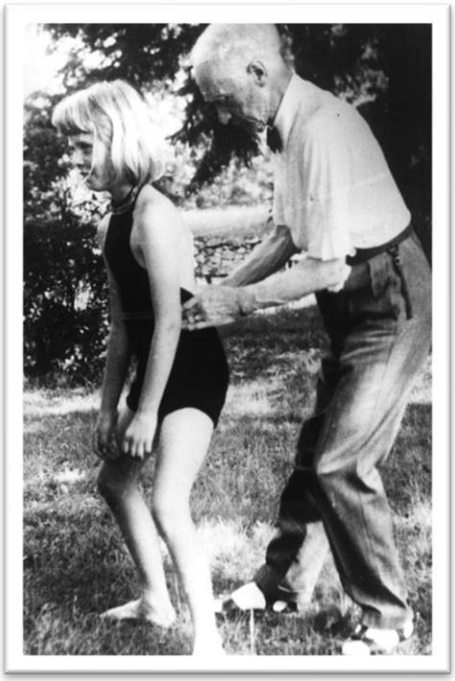


Figure 10.3 Alexander working in a position of mechanical advantage…

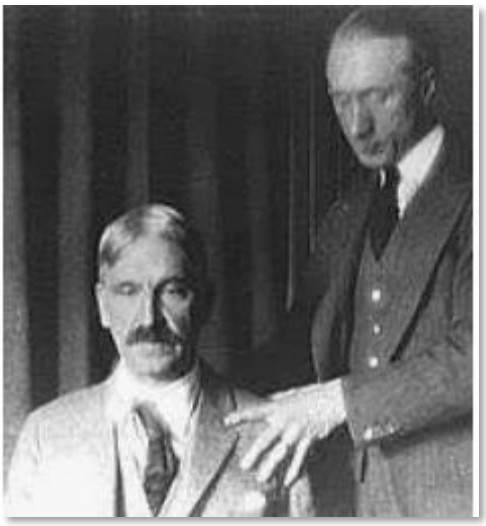


Figure 10.4 Alexander working with John Dewey.

Figures 10.5 a,b Marjory Barlow

6th Int. Alexander Congress in Freiburg, 1999

© N.Hanefeld, 1999

Figure 10.6 Penny O'Connor, Member of STAT working

© P.O'Connor