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Vaccination uptake and information for parents

Introduction

Vaccination remains one of the most cost effective health interventions in the prevention of disease, and is estimated to save between 2-3 million lives each year (WHO, 2019). In the UK, the introduction of a variety of vaccines over the last 70 years has resulted in a dramatic decline in infections once commonplace; for example cases of diphtheria prior to the introduction of a vaccine in the 1950s were in the tens of thousands (Public Health England (PHE), 2013), compared with 11 reported cases in 2018 (PHE, 2019a). Based on the burden of disease, the emphasis of vaccination programmes is largely on children under five years of age (WHO, 2018a), and in the UK, this vital activity is a fundamental and significant part of the role for nurses working in general practice. However, such programmes in all populations can only be successful if enough individuals are vaccinated. Vaccination is not mandated in the UK and parents have the right to decide whether to get their children vaccinated; this stresses the importance of monitoring uptake and providing accurate and up-to-date information and advice for parents to ensure sufficient coverage. This article explores vaccination uptake in children and the importance that evidence-based, current information has in influencing decision-making.

Vaccine uptake rates

It is recommended by the European Region of the WHO that in the UK, coverage for all routine childhood vaccinations achieves 95% (WHO, 1999), not only to provide direct protection for the majority of individuals receiving the vaccine, but also to achieve the effect of herd immunity. In the England, the childhood vaccination programme offers protection against 14 diseases to children under five, and uptake rates are considered to be high (Bedford, 2017). Whilst there are variations between vaccines and geographical locations, data from Public Health England (PHE) report an uptake of 94.3% in 2013/2014 for DTaP-IPV-Hib at 12 months in England, however, by 2017/2018 this had dropped to 93.1%. In some areas, these figures are as low as 75.6% whilst others achieve an uptake of 98.2% (NHS Digital, 2018a). However, the latest coverage data from across England represents a decrease of 1.2% over a five-year period, a moderate, nonetheless concerning decline in uptake. A similar picture is seen with the first MMR vaccine; 2013/2014 data show an uptake across England of 92.7%, compared to 91.2% in 2017/2018 (NHS Digital, 2018a).

The term vaccine hesitancy is frequently linked to uptake, and is used to describe a delay in acceptance or refusal of vaccines even where vaccine services are available (WHO, 2018b). Although it is argued that the phenomenon is much more complex than the definition suggests (Bedford et al, 2018), this is a vital consideration in light of the decline in uptake seen in recent years. It is also important to acknowledge the anti-vaccination movement (anti-vaxxers), described as "minority groups who vocally oppose vaccinations" (Dowden, 2019:35). Whilst this movement represents a potential threat to public confidence in vaccination, there is no published evidence that it has had a direct impact on vaccination uptake, and frontline staff should focus their efforts on those who are vaccine hesitant in order to prevent the current decline in uptake.

McKee and Bohannon (2016) reviewed empirical studies exploring why parents may refuse or delay vaccination, or are vaccine hesitant. They identified four categories: religious beliefs, personal beliefs or philosophical reasons, safety concerns, and a desire for more information. The prominent categories of safety concerns and the need for more information are associated with many of the studies included in this review, making them especially relevant for nurses working in general practice who are responding to questions about vaccination, and perhaps, having discussions with vaccine hesitant parents. Furthermore, these findings emphasise the availability of accurate and contemporary resources for both nurses and parents, so that any discussions and decisions made are fully informed.

It is important that nurses are aware of vaccine uptake data in their own practice area. This is so that they can identify any groups of patients at risk of being under-vaccinated or even unvaccinated, and strategies are developed to address this. The cover of vaccination evaluated rapidly (COVER) programme gathers immunisation uptake data for children aged 1, 2 and 5 (PHE, 2018) and publishes reports on a quarterly basis. NHS Digital have recently collaborated with PHE to produce an interactive dashboard via which COVER data can be viewed (NHS Digital, 2018a), and this information is currently available at a regional and local authority level. NHS Digital are piloting a system which reflects the current dashboard but provides more detailed CCG and GP level data (NHS Digital, 2018b). Similarly, more granulated data is currently accessible via PHE's ImmForm system, which is also the ordering system for vaccines used in the UK schedule. Users of the system must register, but are then able to view vaccine uptake rates relative to their own practice area, and this is especially relevant to GP practices (ImmForm, 2016).

Immunisation information

Parents may obtain information about immunisation from a variety of sources (Ames et al. 2017). The internet can be a source of both substantiated and unsupported information, so it is vital that parents are directed to online information that is evidence-based. The internet is an ideal place to access vaccination information, not only due to its convenience, but also because any information on it can be regularly updated. This is especially important to reflect the latest guidance around the UK vaccination programme, as changes to the schedule occur, based on the development of new vaccines and epidemiological data. In their survey on parental attitudes to vaccination in England, Campbell et al (2017) found that 84% of parents used the internet daily, and that 34% of these parents used the internet to access immunisation information. The most commonly accessed websites were NHS Direct/Choices (36%) and Mumsnet (29%). Social media sites (Facebook, Twitter, chat rooms/discussion forums) were also highlighted as a source of information used by a notable proportion of parents surveyed, and it is reported that parents were more likely to have doubts about immunising their child based on something they had seen in a chat room/discussion forum (Campbell et al. 2017). This finding is supported by a report published by the Royal Society for Public Health (RSPH) (2018), in which parents, adults and healthcare professionals were questioned. The report states that 41% of parents had been exposed to negative vaccination messages on social media, a finding which was reported by healthcare professionals to have also had an impact on parental views about vaccination. However, this impact was not always negative, and it is highlighted how positive vaccination messages in the media can have an equally positive affect in promoting the value of vaccines. There is a call to apply the NHS Information Standards to vaccination information, and a clamp down on 'fake news' on social media platforms (RSPH, 2018).

Ames et al (2017) studied parents' views on communication about childhood vaccination. They found that in addition to the internet, parents cited other sources of information available to them, which included (but were not limited to) nurses, doctors and other health professionals, medical publications, leaflets, posters, peers and friends. This review also found that parents wanted help from health workers to find relevant information, and that they found the amount of information they received to be inadequate.

These studies reiterate the essential role practice nurses have in knowing which credible sources to direct parents to when more information is required. This is also a reminder for nurses to remain up-to-date, so that discussions with parents can be evidence-based, informed and conducted with confidence. Table 1 outlines some of the key resources, for both parents and health professionals.

Table 1 – Key Immunisation Resources

NHS - Vaccinations	Aimed at the public providing an
https://www.nhs.uk/conditions/vaccinations/	overview of the schedule (child and

	adult) and answers some common concerns around vaccine safety.
Public Health England - Immunisation https://www.gov.uk/government/collections/immunisation	Available to both the public and health professionals but probably most useful for health professionals as it hosts the 'Green Book' and provides practice guidance.
Oxford Vaccine Group – Vaccine Knowledge Project <u>http://vk.ovg.ox.ac.uk/</u>	Provides evidence-based information on vaccines and diseases. Designed for both the public and health professionals.
e-Learning for Healthcare - Immunisation https://www.e-Ifh.org.uk/programmes/immunisation/	A training resource for health professionals involved in vaccination.
Public Health England - Vaccine Update https://www.gov.uk/government/collections/vaccine-updat e	A monthly newsletter for health professionals highlighting developments in vaccines, policies and procedures.

Conclusion

Sufficient uptake rates are essential for vaccination to continue to be successful in preventing disease. It is vital that practice nurses are aware of coverage in their own areas so that shortfalls can be addressed, and successes celebrated. An awareness of credible, evidence-based resources is vital so that accurate and current advice is given, and to ensure that parents are directed to information that facilitates decision-making, which is fully informed.

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