SSM -Population Health 2 (2016) 603–612

Contents lists available at ScienceDirect

SSM -Population Health

journal homepage: www.elsevier.com/locate/ssmph

Review article

A qualitative systematic review of factors influencing parents' vaccination decision-making in the United Kingdom

Alice S. Forster [a,*], Lauren Rockliffe [a], Amanda J. Chorley [a], Laura A.V. Marlow [a], Helen Bedford [b], Samuel G. Smith [c], Jo Waller [a]

[a] Health Behaviour Research Centre, UCL, Gower Street, London WC1E 6BT, United Kingdom
[b] Institute of Child Health, UCL, 30 Guilford Street, London WC1N 1EH, United Kingdom
[c] Wolfson Institute of Preventive Medicine, Queen Mary University of London, Charterhouse Square, London EC1M 6BQ, United Kingdom

ARTICLE INFO

Article history:
Received 3 April 2016
Received in revised form
20 June 2016
Accepted 22 July 2016

Keywords:
Thematic synthesis
Vaccination
Parents
Patient Acceptance of Health Care

ABSTRACT

Background: High uptake of vaccinations is crucial for disease prevention. Although overall uptake of childhood immunisations is high in the United Kingdom (UK), pockets of lower uptake remain. Novel systematic methods have not been employed when reviewing the qualitative literature examining parents' vaccination decisions.

Aims: We aimed to conduct a qualitative systematic review of studies in the UK to understand factors influencing parental decisions to vaccinate a child.

Methods: On 12/2/14 we searched PsycINFO, MEDLINE, CINAHL plus, Embase, Social Policy and Practice and Web of Science for studies using qualitative methods and reporting reasons why parents in the UK had or had not immunised their child. Participant quotes and authors' interpretations of qualitative data were extracted from the results of articles. Thematic synthesis was used to develop higher-order themes (conducted in 2015).

Results: 34 papers were included. Two types of decision-making had been adopted: non-deliberative and deliberative. With non-deliberative decisions parents felt they had no choice, were happy to comply and/or relied on social norms. Deliberative decisions involved weighing up the risks and benefits, considering others' advice/experiences and social judgement. Emotions affected deliberative decision-making. Trust in information and vaccine stakeholders was integral to all decision-making. Practical issues affected those who intended to vaccinate.

Conclusions: Parents adopted two different approaches to decision-making about childhood vaccinations. By understanding more about the mechanisms underpinning parents' vaccination behaviour, in collaboration with vaccine stakeholders, we can better design interventions to enhance informed uptake.

Contents

* Corresponding author.
E-mail address: Alice.Forster@ucl.ac.uk (A.S. Forster).

http://dx.doi.org/10.1016/j.ssmph.2016.07.005

1. Introduction

Vaccination is a vital public health intervention for the prevention of communicable diseases. Its effectiveness has been demonstrated by the eradication of smallpox, the near eradication of poliomyelitis and significant reductions in the incidence of vaccine preventable diseases (WHO, 2016a, 2016b). High uptake is crucial to the success of vaccination programmes and if a sufficient proportion of a population are vaccinated, protection is also provided to those who have not been vaccinated (herd immunity). In the United Kingdom (UK), uptake of recommended childhood vaccinations is high (Public Health England, 2014a, 2014b), however disease outbreaks have occurred where pockets of susceptibility remain (Public Health Wales, 2015).

Under most circumstances, UK parents are required to provide consent for children under the age of 16 to receive vaccinations (although individuals <16 years can provide consent if they are deemed competent to do so) (Public Health England, 2015). Understanding why parents do or do not accept vaccinations is complex. Some parents may unquestioningly accept or reject vaccinations, while others experience uncertainty, which may delay or result in rejection of immunisation and some experience barriers that prevent immunisation (Samad, Tate, Dezateux, Peckham, Butler & Bedford, 2006; Larson, Jarrett, Eckersberger, Smith, & Paterson, 2014; MacDonald, 2015; Robison, Groom, & Young, 2012).

There is a pressing need for the development of interventions to address sub-optimal vaccination uptake among those experiencing uncertainty about vaccines (Gordon, Waller & Marlow, 2011; Marlow, Waller & Wardle, 2008; Bosch, Tsu, Vorsters, Van Damme, & Kane, 2012; Franco, de Sanjose, & Broker (2012); NICE, 2013). Behavioural medicine has afforded researchers with the tools to develop effective interventions, but to do so it is important to understand the determinants of vaccination uptake. This is best achieved by rigorously reviewing the existing literature, much of which in this field has been qualitative (providing a rich and in-depth picture of the research area).

While qualitative systematic reviews have been published that explore the determinants of vaccination uptake, novel approaches to systematically synthesising qualitative data have not been adopted (to our knowledge one review has used such techniques to synthesise data pertaining to HPV vaccination (Ferrer, Trotter, Hickman, & Audrey, 2014) and one pertaining to combination vaccines (Brown, Kroll, & Hudson, 2010)). While traditional systematic reviews aim to collate and summarise existing knowledge, methods for synthesising qualitative literature attempt to go beyond simple aggregation. Through comparison across studies and conceptual interpretation, methods for qualitative synthesis seek to generate a new and fuller understanding of the phenomenon of interest, while maintaining rigorous and transparent methods and standards (Barnett-Page & Thomas, 2009; Gough et al., 2012; Jensen & Allen, 1996; Thorne, Jensen, Kearney, Noblit, & Sandelowski, 2004). Parents' vaccination decisions are context-specific (MacDonald, 2015), so any exploration of these decisions needs to be done by country, although the decision-making processes are likely to have commonalities across contexts and findings can be extrapolated to other similar countries. We present findings of a qualitative systematic review that aimed to understand the factors influencing UK parents' decisions to vaccinate a child.

2. Materials and methods

We conducted a systematic review of qualitative studies exploring factors that influence parents' decisions to vaccinate a child as part of the UK childhood immunisation programme (NHS Choices, 2016). On 12/2/14 we comprehensively searched PsycINFO, MEDLINE (Ovid version of PubMed), CINAHL plus, Embase, Social Policy and Practice and Web of Science for studies conducted in the UK at any time, examining vaccination and using qualitative methods (see Supplementary Material for search terms and inclusion/exclusion criteria). Reference lists of included articles were searched for relevant articles and citation searching was performed using Web of Science.

Articles were included if they reported qualitative findings (e.g. from interviews, focus groups, free-text survey responses) and were published at any time in peer reviewed journals in English. We excluded letters, dissertation abstracts, book chapters, reviews and commentaries. Outcome data (quotes that had been reported and author interpretation of qualitative data) were extracted from the results sections of articles/abstracts.

After duplicates were removed, titles were reviewed by AF to exclude articles that obviously did not meet inclusion criteria. All abstracts and then full text articles were reviewed by AF, LR, AC and SS. 'Excluded' articles were checked by another researcher and disagreements resolved by discussion.

Thematic synthesis was used to identify important and recurrent themes (conducted in 2015) (Thomas & Harden, 2008). This method was developed based on the qualitative analytical technique 'thematic analysis' and borrows from traditional systematic review methods. It was developed with the aim that the findings of reviews using the method should be usable and accessible to policy makers and researchers, and could be used to develop interventions. Firstly AF, LR and AC coded one third of the text each, line-by-line and developed descriptive themes following discussion. These were applied to the data by AF, LR and AC. Finally, analytical themes were generated by discussing the descriptive themes at length (AF, LR, AC, LM and JW) until consensus on interpretation was reached. Analysis was conducted using NVIVO (QSR International Pty, 2012). Study quality was assessed