

FACTORS INFLUENCING PARENTS' ACCEPTANCE OF ROUTINE CHILDHOOD VACCINATION: A COCHRANE QUALITATIVE EVIDENCE SYNTHESIS



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BACKGROUND

Childhood vaccination is one of the most effective ways to prevent serious illnesses and deaths in children. However, worldwide many children do not receive all recommended vaccinations. Vaccine hesitancy or nonacceptance may be one contributing factor. Our understanding of what influences parents' views and practices around childhood vaccination, and why some parents may not accept vaccines for their children is still limited. We conducted a Cochrane Qualitative Evidence Synthesis (QES) to fill to knowledge gap. Our QES links to four Cochrane Reviews of the effectiveness of interventions to improve coverage or uptake of childhood vaccination (Saeterdal 2014; Oyo-lta 2016; Jacobson-Vann 2018; Kaufman 2018).

OBJECTIVES

1. Explore parents' and informal caregivers' views and practices regarding routine childhood vaccination and the factors influencing acceptance, hesitancy, or nonacceptance of routine childhood vaccination;
2. Develop a conceptual understanding of what and how different factors reduce parental acceptance of routine childhood vaccination;
3. Explore how the findings of this review can enhance our understanding of the related Cochrane reviews of intervention effectiveness

METHODOLOGY

Search methods: We searched MEDLINE (Ovid), Embase (Ovid) CINAHL (EBSCO), Anthropology Plus (EBSCO), Web of Science Core Collection (Clarivate Analytics), PsycINFO (Ovid) databases for eligible studies from 1974 to July 2020, together with backward reference checking and forward citation searching to identify additional studies. Selection criteria: We included studies that utilised qualitative methods for data collection and analysis; focused on parents' or caregivers' views, practices, acceptance, hesitancy or refusal of routine vaccination for children aged up to six years; and were from any setting globally where childhood vaccination is provided.

Data collection and analysis: We devised a sampling frame to sample from the eligible studies, aiming to capture studies that were conceptually rich, relevant to the reviews' phenomenon of interest, and from diverse geographical and income-level settings. We used a meta-ethnographic approach to extract and synthesise the evidence. We assessed methodological limitations using an adapted version of the Critical Appraisal Skills Programme (CASP) quality assessment tool for qualitative studies. We used the GRADE-CERQual (Confidence in the Evidence from Reviews of Qualitative research) approach to assess our confidence in each finding. We integrated the findings of this review with those from the relevant Cochrane reviews of intervention effectiveness by mapping whether the underlying theories or components of trial interventions related to or targeted the factors influencing parental views and practices regarding routine childhood vaccination identified by this review.

RESULTS

We included 145 studies in the review and sampled 27 of these studies for our analysis. Six studies were conducted in Africa, 7 in the Americas, 4 in South-East Asia, 9 in Europe, and 1 in the Western Pacific. Studies included urban and rural settings, and high, middle- and low-income settings.

Our review developed various types and levels of findings (Figure 1 and 2). We identified 17 second order findings, each representing a specific factor influencing parental views and practices around childhood vaccination. We organized these second order findings into 4 overarching third order themes. Each theme represents a category of factors influencing parental views and practices around childhood vaccination.

FIRST-ORDER FINDINGS	Study participants' views and interpretations	Interpretations of experience
SECOND-ORDER FINDINGS	Study authors' views and interpretations of participants' views and interpretations (expressed as themes, concepts and/or a line-of-argument)	Interpretations of Interpretations of experience
THIRD-ORDER FINDINGS	Review authors' views and interpretations of study authors' views and interpretations (expressed as themes, concepts and/or a line-of-argument)	Interpretations of Interpretations of experience

Theme: Labels, describes or organises portions of data; Concept: Analytically interprets, explains or reframes portions of data; Line of argument: Overarching explanation which links and integrates different concepts and themes. Figure 1. Types and definitions of qualitative research findings.

Theme 1:

Ideas & practices surrounding (child) health & illness: "Parents' vaccination ideas and practices may be influenced by their broader ideas and practices surrounding health and illness, and their perceptions of the role of vaccination within this context"

Theme 2:

Social communities & networks: "Parents' vaccination views and practices and the social networks they inhabit exist in a mutually reinforcing relationship, both shaping and being shaped by each other".

Theme 3:

Political events, relations & processes: Parents' vaccination ideas and practices are often macro-political experiences, enmeshed with wider political issues and concerns"

Theme 4:

Access-supply-demand interactions: Parents' vaccination ideas and practices may be influenced by their access to and experiences of vaccination services"

RESULTS (cont.)

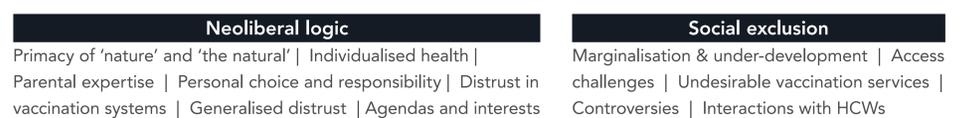
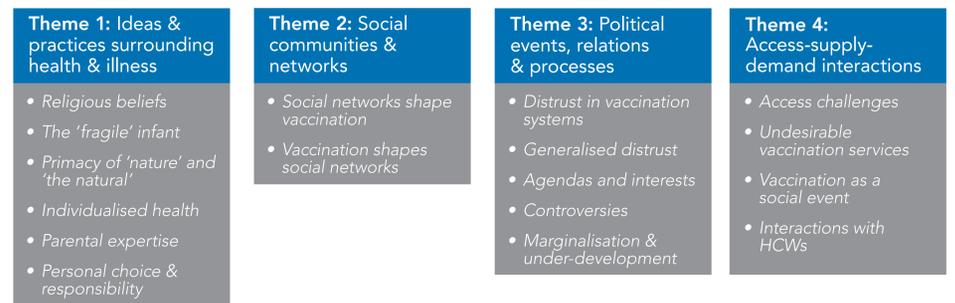
We also synthesized the second order findings to develop 2 third order concepts, each encapsulating a potential pathway to reduced acceptance of childhood vaccination:

Concept 1: Neoliberal logic: "Many parents, predominantly from HICs, held a worldview informed by neoliberal discourses. These discourses understand health as individualised and health-related risks and decisions as matters of individual choice and responsibility. These discourses suggest that being a responsible person in the world means consistently assessing one's own, individual health-related risks, seeking and questioning evidence about such risks, proactively avoiding and managing such risks, and understanding that you are singularly accountable for the outcomes that ensue. Some parents experienced this worldview as in conflict with vaccination promotion messages, which tend to be informed by other types of discourses- discourses that emphasise generalised risk and safety statistics, ask people to trust authorities and follow what they promote, and advocate for social responsibility and the health of the community. Parents' perceived tension between the discourses informing their own worldview and those of vaccination promotion messages led some to resist these messages and be less accepting of vaccination".

Concept 2: Social exclusion: "Some parents, predominantly from LMICs, were less accepting of childhood vaccination due to their experiences of social exclusion. Social exclusion may involve economic disadvantage, residential segregation, a lack of political representation, discrimination, and a myriad of socioeconomic barriers to good quality public services, including vaccination. Social exclusion weakened trustful government-citizen relations, generated feelings of alienation from, and resentment towards, the state and others and gave rise to frustration and demotivation in the face of structural challenges. These factors in turn led some socially excluded parents to distrust vaccination, to refuse vaccination as a form of resistance or a mechanism to bring about change, or to avoid vaccination due to the time, effort, (opportunity) costs and distress it creates".

Finally, we integrated all of the findings to develop 1 line-of-argument which provides an overarching conceptualisation of parental views and practices regarding childhood vaccination.

Line-of-argument: "Parents' views and practices regarding childhood vaccination can be conceptualised as complex and dynamic social processes that reflect multiple webs of influence, meaning and logic".



Line-of-argument: Parental childhood vaccination views and practices are complex and dynamic social processes that reflect multiple webs of influence, meaning and logic

Figure 2. All 2nd and 3rd order findings and their relationships

Comparison of the findings from our review with the related Cochrane reviews of intervention effectiveness:

Many of the overarching factors our review identified as influencing parents' vaccination views and practices were underrepresented in the interventions tested in the trials:

- Only 6 interventions (11%) considered parents' broader health beliefs and practices;
- Only 5 interventions (9%) considered the social networks which parents are affiliated;
- Only 3 interventions (5%) considered the interactions and forms of communication between healthcare workers and parents;
- No intervention appeared to consider parents' experiences of the social nature of vaccination services;
- Future trials should consider developing and testing interventions that target these factors.

CONCLUSION

Our synthesis provides a theory of how social process influence vaccination acceptance, thereby extending more individualistic models on vaccination decision-making. The synthesis findings could guide the development of interventions to promote acceptance of childhood vaccination that are better aligned with the norms, expectations and potential concerns of target users.

References

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