

COMMENTARY

OPEN ACCESS



Exploring complementary medicine practitioners' attitudes towards the use of an immunization decision aid, and its potential acceptability for use with clients to reduce vaccine related decisional conflict

Jane E. Frawley^a, Kirsty McKenzie^a, Bradley L. Forssman^b, Elizabeth Sullivan^{a,c}, and Kerrie Wiley^d

^aAustralian Centre for Public and Population Health Research, University of Technology Sydney, Sydney, Australia; ^bPublic Health Unit, Nepean Blue Mountains Local Health District, Sydney, Australia; ^cSchool of Medicine and Public Health, University of Newcastle, Newcastle, Australia; ^dSchool of Public Health, University of Sydney, Sydney, Australia

ABSTRACT

While Australia boasts a high immunization rate, geographical pockets of low uptake still challenge herd immunity on a community level. For some parents, concerns about immunization lead to distrust of conventional sources of vaccine information and complementary medicine (CM) practitioners may be more readily trusted as a source of information about vaccines. Decision aids are common educational resources that are developed to support informed decision making. We interviewed CM practitioners to explore their attitudes to immunization decision aids in general and the acceptability of recommending this resource to parents with concerns or questions about immunization. While some practitioners felt that it might be biased towards immunizations, all said that they would recommend the resource to parents. CM practitioners are a trusted source of information, including immunization advice for some parents. CM practitioners were generally supportive of decision aids as a tool they could use in their practice to help parents with immunization questions, where a premium is often placed on patient choice.

ARTICLE HISTORY

Received 30 April 2020
Accepted 19 May 2020

KEYWORDS

Immunization; vaccine; vaccination; complementary medicine; decision aid; measles mumps rubella; children

Despite a healthy overall national immunization rate for children in Australia, vaccine uptake remains problematic in certain communities, challenging herd immunity.¹ Parents with concerns about the safety of immunization may feel they lack sufficient information to make a decision,² and describe a desire for unbiased information that addresses risks as well as benefits of vaccines to facilitate decision-making.³ Such parents may not trust conventional sources of vaccine information such as primary health care practitioners and governments and may feel they are being coerced into having their child immunized.^{3–7}

Parents who are cautious about vaccination are frequent users of complementary medicine (CM).^{8,9} They are also more likely than vaccine-compliant parents to visit a CM practitioner, in particular, a naturopath, chiropractor or homeopath to discuss vaccination,¹⁰ and more likely to be influenced by information about vaccination from a CM practitioner.⁸ CM is a broad church of health care practices and products that are outside the dominant biomedical health care model.¹¹ Research shows 44% of Australians visited a CM practitioner in the prior 12 months¹² and 48% of Australian pregnant women (a point when many parents first consider immunization) consulted a CM practitioner.¹³

In the local context, CM practitioners are part of the Australian health care delivery system, as evidenced by Tertiary Education Quality and Standards Agency accredited degrees. Research demonstrates that Australian children are significantly less likely to be vaccinated if they used CM in the previous 12

months; however, the degree to which this relates to personal beliefs rather than the views of the CM practitioner is unknown.^{8,14} Current CM education does not appear to include a transparent, evidence-based approach to vaccination¹⁰ and despite mainstream critique and emerging issues around risk, safety, and disclosure, many parents seek advice from CM practitioners. Therefore, CM practitioner influence on patient care and population health outcomes cannot be ignored.

Could decision aids be useful clinical resources for CM practitioners?

Research suggests that CM practitioners are often reticent to engage with parents who ask questions about immunization, and may tend to uphold a personal choice ethic, rather than endorsing a public health message.¹⁰ Given that both parents and CM practitioners frame immunization within a personal choice ethic, decision aids may offer a way for CM practitioners to engage with parents about immunization. The primary goal of a decision aid is to reduce decisional conflict. Decision aids should “not advise people to choose one option over another”.¹⁵ According to the International Patient Decision Aid Standards, a decision aid should do three things to prepare a person to make a decision:

- (1) present facts about medical options in an unbiased way the gives equal attention to benefits and potential risks associated with each option;

- (2) help patients clarify what is important to them (their values) and how these are relevant to each possible option;
- (3) provide a way for patients to communicate these values with their health care practitioners.

Decision aids are judged to be successful if the patients who use them feel that they have made the right decision for their circumstances, based on their values.

According to Shourie et al.,¹⁶ while much government information discusses the risks of not immunizing, decision aids explore the risks of having the vaccine alongside the risks of not having the vaccine. They thus address parents' desire for information that deals with risks of immunizing within a framework that emphasizes personal decision-making. Decision aids may assist parents to make more fully informed decisions. Shourie et al.¹⁶ argue that when faced with immunization decisions, parents may focus on only one aspect of the decision, such as how they would feel if their child had an adverse reaction to a vaccine. The interactive values clarification component of decision aids may help parents make effective use of the provided information to make a decision that is coherent with their values, considering all possible outcomes.

Decision aids may provide a valuable tool to help CM practitioners engage with parents who have concerns about immunization. Decision aids are coherent with a CM practitioner's desire to uphold a personal decision-making ethic with parents and recommending a decision aid may provide an opportunity for CM practitioners to support informed decision-making rather than merely telling the parent that it is their own choice without any provision of information. In addition, a decision aid recommended by a CM practitioner may be acceptable to parents who are less trusting of information provided by a GP, and more comfortable with the practice culture and philosophy of CM, which places a premium on patient choice and autonomy. To date, there is no research on the acceptability of immunization-related decision aids to CM practitioners, and how comfortable they would feel recommending such a decision aid. Accordingly, we conducted a small research project to determine if a segment of CM practitioners would be willing to recommend an immunization decision aid, and what such a decision aid would need to include.

We interviewed CM practitioners to explore their attitudes to decision aids in general and to an example of an immunization-related decision-aid. A purposive sampling strategy was employed to assess the acceptability of decision aids to CM practitioners who might be willing to use this approach with parents. Practitioners were invited to take part in our study if they operated an Australian practice in an area with low immunization rates or had experience with clients with concerns about immunization; and had a degree qualification in a major area of CM. Those who chose to participate in the research are therefore not representative of the whole field of CM practitioners. Instead, the sampling strategy aimed to capture the attitudes of those for whom the decision-aid might be of value.

The National Center for Immunization Research and Surveillance Measles Mumps Rubella Decision Aid

The Measles Mumps Rubella Decision Aid (MMR decision aid) is currently housed on the National Center for Immunization Research and Surveillance (NCIRS) website and is a publicly available resource. This decision aid was developed according to the International Patient Decision Aid Standards, and several studies have evaluated its use.^{16–20}

It provides information about measles, mumps and rubella, the vaccines for these diseases, and risks associated with each illness and with the MMR vaccine. Testing with groups of parents in non-CM settings found its use associated with a decrease in decisional conflict and an increase intention to vaccinate^{16,17} We used the MMR decision aid as stimulus material to get practitioners thinking about what a useful decision aid would need to include and how it would need to look. One week before the interview, we provided practitioners with a link to the MMR decision aid and asked them to familiarize themselves with it. Note: the MMR decision aid available on the NCIRS website is currently being updated to include varicella as the Australian immunization schedule now requires the varicella-containing MMRV vaccine to be given at 18-months (in addition to the MMR vaccine offered at 12-months of age).²¹

Participants

We interviewed 14 CM practitioners (11 had a Bachelor's degree, and the remaining 3 had a Master's degree). Modalities practiced included naturopathy (9), traditional Chinese medicine and, or acupuncture (3), and Western herbal medicine (2). The majority had been in practice for between 9 and 13 years, and two practitioners had been in practice for over 20 years. Practitioners had practices in NSW, Victoria, and Queensland. Most practitioners were either unaware of the general concept of a decision aid before participating in our research or had never seen or used one. Only one participant knew of the existing MMR decision aid. However, practitioners described their current practice with parents as being coherent with the aims of a decision aid. Practitioners described wanting to support parent's decision-making about childhood vaccinations, rather than telling them what to do. They also stressed the value of respecting parent's right to make their own decision. Additionally, practitioners stressed that clients did not want to be told what to do by medical professionals but wanted to be able to make their own decisions. In this context, a decision aid can be seen as a philosophically aligned tool for use by CM practitioners.

'A brilliant idea'

Broadly, practitioners were very positive about the idea of using a decision aid with parents who had concerns about immunization. Participant P01 described how a decision aid was consistent with her approach to supporting parental decision making.

I think it's a brilliant idea. Absolutely brilliant. I think it's fantastic. It's just going along the lines of what I've been talking about, just to give parents an informative chance to make a decision and be happy with it (P01).

For some practitioners, this enthusiasm extended to the existing MMR decision aid, even though it was developed for use in a conventional health care context. Several practitioners described how they wished they had had access to the existing decision aid over the course of their time in practice. Many practitioners wanted to know how to find it again so they could start using it, some had bookmarked it for use with future clients, or asked permission after the interview to use it with clients. Two practitioners also said that they thought it should be widely publicized and made available to health care professionals, including CM practitioners.

No, I think it's a really, really good idea and I hope that it becomes something that is circulated widely amongst – I mean I don't know if it's circulated in the medical industry, but I hope it is and I hope it's circulated in the natural medicine world as well. (P03).

Participant P08 described it as the “little missing tool” (P08) and asked why she didn't know about it before and suggested that she would share the decision aid with other practitioners in her network.

Bias and balance

A biased or balanced discussion of risk is central to a decision aid and this was an important issue in the interviews. Some participants felt that the MMR decision aid was balanced with respect to how risk was portrayed. However, others felt that the decision aid came across as pro-immunization rather than neutral. Many participants discussed the difficulties in portraying risk in a seemingly balanced way as risk in this context is inherently unbalanced, meaning the risks associated with not immunizing are greater than those associated with immunizing.

In a balanced way? Well I don't actually think it does because I don't think – I'm not sure that the risk of not being vaccinated was actually highlighted strongly enough ... I think that the risk of not being vaccinated is much greater than the risk of being vaccinated (P05).

While not a strong theme, some practitioners commented that the decision aid was biased and some risks were not addressed at all. These “risks” included autoimmune disease, allergy and asthma. This concurs with recent research from Switzerland that found some medical practitioners, who were also trained in CM, described particular concerns about immunization such as the induction of autoimmune disease.²² Given our findings suggest that some CM practitioners may be vaccine hesitant themselves, future immunization decision aids could be more widely tested in CM clinical settings to examine whether they need to be amended to specifically address common but unfounded concerns for more vaccine-hesitant parents and some CM practitioners. If warranted, the addition of this material may help to address the risk of parents looking elsewhere for this information and being influenced by unreliable sources.

Would CM practitioners use a vaccine decision aid in practice?

Almost all practitioners indicated that they would be prepared to use the existing decision aid with at least some clients, and, as mentioned above, some indicated that they were going to use it in the future now they knew it existed.

Absolutely. It's something I wish I'd had for all those times through the years when I've had to – but you know, I think it would be a great resource to use in clinic actually, if someone has concerns (P04).

Even those who felt the decision aid had omissions considered that it could be useful for some parents or could be used alongside other resources, or as a starting point for a discussion. None of the practitioners identified any significant barriers to using a decision aid (including the existing decision aid) in their practice, with the exception that some clients who were already very opposed to vaccination may not be receptive to it.

This research informs the production of further education and information resources for CM practitioners and parents who use CM, enabling CM practitioners to more confidently answer parents' questions about vaccination. Decision aids provide a philosophically-aligned and acceptable way to deliver vaccine information to parents that could be introduced during a CM practitioner's training or accessed as a continuing professional education module online or in a workshop format.

This novel research study was qualitative, utilizing a purposive sampling strategy. The results, therefore, cannot be generalized to speak for the views and attitudes of CM practitioners in general. Many practitioners did not reply to our invitation to participate, and some declined. The majority of the practitioners interviewed had positive attitudes towards immunization; while this is not representative of the whole CM community, we believe that it is important to hear their voices on this topic. Many CM practitioners are pro-immunization¹⁰ and form an essential bridge to vaccine-hesitant parents who seldom access conventional care. Subsequent research could use a quantitative approach to explore attitudes of a more comprehensive section of the CM community and among CM students.

Conclusion

Commentators have suggested that CM practitioners discourage or actively oppose vaccination; however, this research supports research from Canada, the US and Europe that shows no default position on vaccination by many CM practitioners.^{10–22} Even though studies show that parents with unimmunized children trust information about immunization received from CM practitioners,¹⁰ research on vaccine rejection to date has focused upon communication between parents and conventional health service providers. Our research has broadened the knowledge base to include a wider selection of practitioners to support further evidence-based conversations with parents who have concerns and questions about immunization. As the use of CM increases, it is critical to understand the public health implications and support pro-immunization CM practitioners to have conversations with parents about immunization.

Acknowledgments

We are grateful to the National Health and Medical Research Council (NHMRC) for an Early Career Fellowship (GNT1124075) that supported Jane Frawley during this research.

Disclosure of potential conflicts of interest

No potential conflicts of interest were disclosed.

Funding

This work was supported by Wentworth Healthcare Limited, provider of the Nepean Blue Mountains PHN.

ORCID

Jane E. Frawley  <http://orcid.org/0000-0001-6037-0140>

References

1. Commonwealth of Australia. The national immunisation strategy 2019–2024. [Accessed November 2019]. <https://beta.health.gov.au/resources/publications/national-immunisation-strategy-for-australia-2019-to-2024>
2. Gust DA, Kennedy A, Shui I, Smith PJ, Nowak G, Pickering LK. Parent attitudes toward immunizations and healthcare providers: the role of information. *Am J Preventive Med.* 2005;29(2):105–12. doi:10.1016/j.amepre.2005.04.010.
3. Fredrickson DD, Davis TC, Arnould CL, Kennen EM, Hurniston SG, Cross JT, Bocchini JA. Childhood immunization refusal: provider and parent perceptions. *Fam Med.* 2014;36:431–39.
4. Austvoll-Dahlgren A, Helseth S. What informs parents' decision-making about childhood vaccinations? *J Adv Nurs.* 2010;66(11):2421–30. doi:10.1111/j.1365-2648.2010.05403.x.
5. Benin AL, Wisler-Scher DJ, Colson E, Shapiro ED, Holmboe ES. Qualitative analysis of mothers' decision-making about vaccines for infants: the importance of trust. *Pediatrics.* 2006;117(5):1532–41. doi:10.1542/peds.2005-1728.
6. Busse JW, Walji R, Wilson K. Parents' experiences discussing pediatric vaccination with healthcare providers: a survey of Canadian naturopathic patients. *PLoS One.* 2011;6(8):e22737. doi:10.1371/journal.pone.0022737.
7. Danchin M, Nolan T. A positive approach to parents with concerns about vaccination for the family physician. *Aust Fam Physician.* 2014;43:690–94.
8. Frawley JE, Foley H, McIntyre E. The associations between medical, allied and complementary medicine practitioner visits and childhood vaccine uptake. *Vaccine.* 2018;36(6):866–72. doi:10.1016/j.vaccine.2017.12.036.
9. Attwell K, Ward PR, Meyer SB, Rokkas PJ, Leask J. “Do-it-yourself”: vaccine rejection and complementary and alternative medicine (CAM). *Soc Sci Med.* 2018;196:106–14. doi:10.1016/j.socscimed.2017.11.022.
10. Wardle J, Frawley J, Steel A, Sullivan E. Complementary medicine and childhood immunization: A critical review. *Vaccine.* 2016;34(38):4484–500. doi:10.1016/j.vaccine.2016.07.026.
11. Reid R, Steel A, Wardle J, Trubody A, Adams J. Complementary medicine use by the Australian population: a critical mixed studies systematic review of utilisation, perceptions and factors associated with use. *BMC Complement Altern Med.* 2016;16:176. doi:10.1186/s12906-016-1143-8.
12. Xue CC, Zhang AL, Lin V, Da Costa C, Story DF. Complementary and alternative medicine use in Australia: a national population-based survey. *J Altern Complement Med.* 2007;13(6):643–50. doi:10.1089/acm.2006.6355.
13. Frawley J, Adams J, Sibbritt D, Steel A, Broom A, Gallois C. Prevalence and determinants of complementary and alternative medicine use during pregnancy: results from a nationally representative sample of Australian pregnant women. *ANZJOG.* 2013;53(4):347–52. doi:10.1111/ajo.12056.
14. Frawley JE, McIntyre E, Wardle J, Jackson D. Is there an association between the use of complementary medicine and vaccine uptake: results of a pilot study. *BMC Res Notes.* 2018;11(1):217. doi:10.1186/s13104-018-3323-8.
15. International Patient Decision Aid Standards (IPDAS) Collaboration. 2014. [Accessed January 2020] <http://ipdas.ohri.ca/>
16. Shourie S, Jackson C, Cheater FM, Bekker HL, Edlin R, Tubeuf S, Harrison W, McAleese E, Schweiger M, Bleasby B, et al. A cluster randomised controlled trial of a web based decision aid to support parents' decisions about their child's Measles Mumps and Rubella (MMR) vaccination. *Vaccine.* 2013;31(50):6003–10. doi:10.1016/j.vaccine.2013.10.025.
17. Jackson C, Cheater FM, Peacock R, Leask J, Trevena L. Evaluating a web-based MMR decision aid to support informed decision-making by UK parents: A before-and-after feasibility study. *Health Educ J.* 2010;69(1):74–83. doi:10.1177/0017896910363146.
18. Wallace C, Leask J, Trevena L. Effects of a web based decision aid on parental attitudes to MMR vaccination: a before and after study. *BMJ.* 2006;332(7534):146–49. doi:10.1136/bmj.38678.681840.68.
19. Wroe AL, Turner N, Owens RG. Evaluation of a decision-making aid for parents regarding childhood immunizations. *J Health Psychol.* 2005;24(6):539. doi:10.1037/0278-6133.24.6.539.
20. National Centre for Immunisation Research and Surveillance. MMRV decision aid 2019. [Accessed February 2020] <http://www.ncirs.org.au/public/mmr-vaccine-decision-aid>
21. Australian Government Department of Health. National immunisation program schedule. 2019. [Accessed January 2020] <https://beta.health.gov.au/health-topics/immunisation/immunisation-throughout-life/national-immunisation-program-schedule>
22. Deml MJ, Notter J, Kliem P, Buhl A, Huber BM, Pfeiffer C, Burton-Jeangros C, Tarr PE. “We treat humans, not herds!”: A qualitative study of complementary and alternative medicine (CAM) providers' individualized approaches to vaccination in Switzerland. *Soc Sci Med.* 2019;240:112556. doi:10.1016/j.socscimed.2019.112556.