Vaccine discussions with parents: The experience of Australian paediatricians

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Background

• Vaccination coverage remains high in Australia with 93% of children fully vaccinated at one and five years of age

• Many parents have concerns about vaccinations, mainly pertaining to safety

• Health care providers (HCPs) play a crucial role in maintaining public confidence in vaccines
  • Most commonly accessed vaccine-related resource by parents and highly trusted
  • Opportunity and a responsibility to address vaccine-related questions and concerns
Coverage is stable with persistent gap

92% Fully vaccinated

~4.7%
Lack of Opportunity (Access, Awareness, Activation, Affordability)

~3.3%
Lack of Acceptance


2 Thomson A et al. (2016) Vaccine. 34;1018-1024.

Vaccine acceptance is on a spectrum\textsuperscript{1,2}

- **Accepting**
- **Cautiously accepting**
- **Hesitant**
- **Selective or Declining**

**No Concerns 48-57\%\textsuperscript{3,4}**

**Concerns for 43-52\%\textsuperscript{3,4}**
- Minor 35-38\%
- More highly hesitant 8-12\%

Vaccine ingredients
- Too many vaccines in the first 2 years
- Weakening of the immune system
- Specific vaccines ie MMR and autism

1. Benin AL. et al *Pediatrics* 2006
2. Leask et al *BMC Pediatrics* 2012
3. Chow et al *Aust Fam Physician* 2017
4. Costa-Pinto et al *Unpublished data* 2017
Aims

We investigated Paediatricians’
i) frequency of vaccine discussions
ii) specific vaccine-related topics discussed
iii) perceived role in childhood vaccination
iv) challenges faced when having discussions
v) confidence in vaccine-related knowledge and communication skills
vi) interest in online education and training to support vaccine-related discussions in the Australian context.
Methods

Survey through the Australian Paediatric Research Network (APRN)
- 486 members; 383 research active (38% of RACP paeds)
- members invited to complete the annual online REDCap Multi-Topic Survey (MTS)
- between September 2015 and January 2016
- three topics; 3 reminder emails

Survey
- designed by general paediatricians, advanced paed trainee, cognitive psychologist; informed by previous survey instruments
- 10 questions, 2 open-ended measured using Likert scales

Data exported in excel and analysed using STATA version 13
Results

Demographics

165 of 383 active APRN members (43%) completed the survey
- majority were female (53%)
- younger (44% <44 years old)
- worked part-time (58%) and in public practice (62%)
- compared to all Australian paediatricians registered with the Australian Health Practitioner Regulation Agency (AHPRA), APRN members were more likely to be younger, working part time and based in rural or regional areas
- participating paeds saw an average of 33 patients each week (SD 22)
### Frequency of vaccine-related discussions and role

<table>
<thead>
<tr>
<th>Frequency of discussions</th>
<th>N=64</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely (&lt;10% of all referrals)</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Sometimes (10-50% of all referrals)</td>
<td>40</td>
<td>24</td>
</tr>
<tr>
<td>Frequently (51-90% of all referrals)</td>
<td>41</td>
<td>25</td>
</tr>
<tr>
<td>Almost always (&gt;90% of all referrals)</td>
<td>59</td>
<td>36</td>
</tr>
</tbody>
</table>

**Role:** “very frequently” or “always”

- **Answer parents questions about vaccines** (57%)
- **Advise parents of vaccine-related information resources** (48%)
- **Tailored vaccination schedules** (17%), **routine** (14%) or **catch up vaccines** (13%)
<table>
<thead>
<tr>
<th>Topics discussed</th>
<th>Frequently (51-90%)</th>
<th>Almost always (&gt;90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine necessity</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Vaccine safety</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>General vaccine concerns</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Catch up schedules</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>High or special risk patients</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Vaccine efficacy</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Concern about specific vaccines</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>- MMR and autism</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>- Rotavirus and diarrhoea</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Vaccine ingredients</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Too many vaccines on NIP</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>CO form completion</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
### Barriers to having vaccine-related discussions and self-reported knowledge and skills

<table>
<thead>
<tr>
<th>Barriers to having vaccine-related discussions (N=162)</th>
<th>Paeds who reported barriers challenging (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too many other issues to discuss</td>
<td>54</td>
</tr>
<tr>
<td>Lack of time</td>
<td>45</td>
</tr>
<tr>
<td>Concern with introduce conflict to r/ship</td>
<td>21</td>
</tr>
<tr>
<td>Lack of knowledge on specific vaccines</td>
<td>11</td>
</tr>
<tr>
<td>Lack of knowledge on NIP</td>
<td>9</td>
</tr>
</tbody>
</table>

**Paediatricians reported a lack of confidence in**
- vaccine-related knowledge (25%)
- vaccine-related communication skills (11%)
Interest in online education and training

Majority paediatricians interested in online training in:

- **vaccine-related knowledge** (62%)

- **vaccine-related communication skills** (53%)

- Assuming good quality and relevant to practice
  - 47% willing to spend 1 hour
  - 48% willing to spend 2-4 hours
Conclusion

Paediatricians play a key role in maintaining public confidence in vaccination

**Opportunities to address vaccine concerns are not being maximised** by Australian paediatricians

- barriers included lack of time and too many other issues to discuss
- paediatricians can play a greater role, longer consultation times than GPs
- they should prioritise discussing vaccine safety and parents common concerns in addition to vaccine necessity
- greater awareness of vaccine resources and communication skills would assist HCPs with vaccine-related discussions
Conclusion

There is a need and desire for training and resources to increase vaccine knowledge and communication skills for paediatricians to:

- improve their self-efficacy to address parents’ vaccine concerns

- optimise the frequency and effectiveness of vaccine discussions with parents

- ensure ongoing confidence and high immunisation coverage rates in Australia
Acknowledgements

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