

Autonomy and Parental Consent Decisions for Public Health Interventions: a Qualitative Meta-synthesis of School Age Vaccination

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Abstract

Background

The issue of consent for vaccine programmes has been highlighted recently by global pandemic caused by COVID – 19 and the need for rapid uptake of vaccinations. 'Vaccine hesitancy' is now an ordinary part of the conversation when discussing population-based programmes aimed at reducing the spread of disease. To provide, refuse or delay consent is has often seen as tangible expression of the acceptability of public health intervention, but debate has started to include the consent process itself, particularly where one person is making the decision for another *e.g* parent for child.

In developed countries parental consent is required prior to vaccination of children. Health professionals are trained to provide medical facts to parent to help them make a choice but not to interfere in personal decisions. However, deciding whether to consent to or refuse vaccination on behalf of a child can be a difficult task for some parents and there is little understanding of the influences that facilitate or impede parents' decision making.

The following question was posed: What influences parents' decisions to provide or refuse their consent for inclusion into public health programmes aimed at their school age children (4-18 years) in developed national healthcare systems?

Methods

This is a systematic review that uses qualitative meta-synthesis. PsychINFO, PsycARTICLES, MEDLINE and the International Bibliography of the Social Sciences were searched for papers. After screening abstracts and full texts, 14 papers were subject to quality standards review and ultimately nine papers were included in the final review. First, second, and third order constructs were identified. First order constructs were taken as participant views, interpretations put forward by the papers' authors were deemed second order constructs, before any commonalities were identified and grouped into third order constructs that were subsequently arranged into seven major analytical themes.

Findings

Parents' provide or refuse consent based on more than the factual, evidence-based information supplied by health professionals. Personal information from a trusted source often has more influence, with parents valuing this 'evidence' as much as traditional scientific information. Consent decisions reflect the fact that people are inherently social beings that are politically and economically located in society. Parents' consent decisions are influenced by a complex web of circumstances.

Conclusion

We should not think of consent for public health interventions in simplistic terms *i.e.* where medically factual information is provided by health professionals on with no other input and on which we expect parents to make a decision. This is an outdated mode of operating based on medical model of health.

Introduction

The global pandemic cause by the COVID – 19 virus has shone a spotlight on the need for rapid uptake of vaccinations. To provide, refuse, or delay consent is has often seen as tangible expression of the acceptability of public health intervention by the public, but debates acceptability have started to include the consent process itself, particularly where one person is making the decision for another *e.g* parent for child.

Until recently only children with specific medical conditions or those living with a clinically vulnerable adult were offered the COVID-19 vaccine, but as mass vaccination programmes are rolled out across the international community there is a

need to better understand what influences parents when faced with such as decision. In the UK children are generally viewed as old enough to make their own decision about treatment of this kind once they reach 16, although there is scope in English and Welsh law to allow younger children to do this if competent to do so. This is known as 'Gillick competence' and follows a ruling from the 1980's.¹ Globally the age of consent to treatment varies. In Europe the lowest legal age is 14, rising to 18 in many other countries.² However, global vaccination programmes against COVID – 19 are targeted at younger children where parental consent is usually considered part of the vaccination programme process. For example, in the United Arab Emirates and Bahrain the COVID-19 vaccination programme is approved for children as young as three years old.³ Some countries such as the United States of America have approved the vaccine for five-year-olds and above⁴ and the World Health Organisation has stated that vaccinations are suitable for children over 12 years.⁵ Despite politicians publicly urging us to get vaccinated health professionals in most developed countries are trained to provide medical facts but not to interfere in personal decisions or be overtly persuasive when requesting consent.⁶ For example, in the UK health professional's respect for individual autonomy is enshrined in the ethical codes of professional regulatory bodies such as the General Medical Council,⁷ Nursing and Midwifery Council.⁸ As a result, any form of influence by health professionals can be seen negatively as (hard) paternalism⁸ and not respectful of autonomous choice. But, is a position of seeming neutrality the right approach? With uptake of COVID-19 vaccination programmes varying widely across the world, it is essential that we understand what influences parents' consent decisions so that we are better able to support them to make a decision that is right for them.

A literature search and meta-synthesis was undertaken to explore what influences parents' decisions to consent or refuse vaccination for their school age children.

This review is about parental consent in general, however as a result of the volume and emergent literature, papers on HPV have been used as an exemplar to explore parental consent as part of public health practice. However, this review is not specifically about HPV, it's focus is parental consent decision making for vaccination programmes and therefore can be applied across vaccination programmes *e.g.* COVID-19, MMR, or other child focused programmes. All papers included stated that consent from a parent or legal guardian was required prior to vaccination. In this situation parents are the decision maker.

The notion of parental autonomy in decision making is underpinned in many countries by national laws, *e.g.* the Children's Act for England¹⁰ which states that parents have responsibilities for '*all the rights, duties, powers, responsibilities and authority which by law a parent of a child has in relation to the child and his property.*' However, making the decision to consent to or refuse vaccination on behalf of a child can be a difficult task for some parents and there is little understanding of the influences facilitate or impede parents' decision making to consent or refuse these vaccinations.

We sought to answer the following question: *What influences parents' decisions to provide or refuse their consent for inclusion into public health programmes aimed at their school age children (4-18 years) in developed national healthcare systems?*

The rest of the papers are organised as follows. Section two presents the methods used including how papers were analysed using 1st, 2nd and 3rd order constructs as the basis for further interpretation and section three presents and discusses the findings thematically. Section four concludes.

Methods

This is a systematic review that uses qualitative meta-synthesis. The purpose is not to establish causality but to account for what parents and researchers have identified as influencing parents' decisions that are made on their child's behalf.

The PRISMA guidelines used as the basis for this process.¹¹ A flow chart diagram of the process followed is shown as an appendix.

Search strategy

The aim of the search was to capture empirical research literature detailing parents' experiences of consent decision making. The electronic databases PsychINFO, PsycARTICLES, MEDLINE and the International Bibliography of the Social Sciences were searched for papers published from 2007 (this is when the concept of relational autonomy emerged as a distinct subject in academic literature) to 2021. Searches were performed using a medical subject heading (MeSH) terms, free text and their truncated variants, including 'parent', 'public health', 'consent', 'vaccination', 'influence' and 'autonomy'. Search strings were developed using Boolean operators to increase the accuracy of electronic searches. References lists from the final nine papers included were also reviewed for additional studies.

Study selection

Papers were included if they met the following criteria; published in the English language; the research must be empirical and published in a peer reviewed journal; the research is about vaccination programmes where parents make consent decisions on behalf of school age children (4-18 years); the research must be carried out in countries that are members of the Organisation for Economic Co-operations and Development, *i.e.* those more likely to have developed health care systems. Papers were excluded if the focus of the research was about mental capacity as defined in law *e.g.* the UK's Mental Capacity,¹² and not about personal or social influences on parents' decisions, or if the paper was about the use of a decision tool or aid.

Data extraction and synthesis

Meta-synthesis was employed to analyse the content of all the eligible papers.¹³ This is based on the interpretative strategy for thematic synthesis described by Thomas and Harden¹⁴ and included in the Economic and Social Research Council's (ESRC) critical review.¹⁵

First, second, and third order constructs¹⁶ were identified within all papers included. First order constructs were taken as participant views and these were usually represented in the papers as direct quotes. Interpretations put forward by the papers' authors were deemed second order constructs. Commonalities within the second order constructs were identified and grouped into third order constructs that were subsequently arranged into major analytical themes.

Results

The results of each stage of the search is presented in the flow chart shown in diagram one.

The search initially identified 1749 papers spread across the four data bases after duplicates were removed. Four additional papers were identified via the reference list search. After comparing the title, abstract and then full text to the inclusion and exclusion criteria 14 papers were put forward for quality assessment. When assessed against the quality standards of Critical Appraisal Skills Programme.¹⁷ Initially, papers were read and assessed against the two 'screening' questions posed at the start of the CASP checklist. Once they had passed this hurdle, the remaining 14 were assessed against the full set of quality questions. Five papers received negative responses in more than half of the assessment questions (indicating poor quality or missing information) and were excluded. The remaining nine papers were included in the final review. These are summarised below in Table 1.

Table 1
Master summary table of all papers included in the final synthesis

Author(s)	Date	Research design	Country
Shelton, R. et al	2011	Cross-sectional study investigating consent decisions by parents for the HPV vaccine Online survey sent to participants selected through multistage probability sampling & random digit dialing.	United States of America
Krawczyk, A. et al	2015	Cross-sectional study investigating consent decision by parents for the HPV vaccine Questionnaire sent to a random sample of participants selected from Quebec Medical Health Insurance Board.	Canada
Dorell, C. et al	2011	Cross sectional study investigating consent decisions by parents for the HPV / Tetanus-diphtheria-acellular pertussis (Tdap) and meningococcal Conjugate (MenACWY) vaccines 2 stage data collection was conducted with participants selected via random digit dialling and subsequently a questionnaire was posted to those eligible	United States of America
Vandenberg, S. and Kulig, J.	2015	Grounded theory study investigating consent decisions for childhood vaccinations. Data collected from 8 Mothers who had chosen not to provide consent and 12 Health Care Professionals using semi structured interviews	Canada
Dempsey, A. et al	2009	Structured interviews with open ended questions were used to investigating consent decisions by Mothers for the HPV vaccine, targeted at girls (11-17 years) and analysed via thematic analysis.	United States of America
Robbins, S. et al	2010	Semi structured focus groups were conducted with girls from nine purposively selected schools and interviews with parents, teachers and nurses to investigate consent decisions for the HPV vaccine Thematic analysis was used.	Australia
Gottvall, M. et al	2013	27 interviews with parents of children aged 11-12 years who had consented to HPV vaccination were conducted and thematic content analysis was used.	Sweden
Hofman, R. et al	2013	Four focus groups were conducted with parents of daughters aged 8-15 years to investigate consent decisions by parents for HPV vaccine 3 groups consisted of Dutch parents and one of Turkish parents. Thematic analysis was performed.	The Netherlands
Fisher, H. et al	2020	53 semi structure interviews with girls, parents, immunisation nurses and school staff were conducted in to investigate autonomy and information needs. Thematic analysis was used.	United Kingdom

Findings

Seven overarching analytical themes were developed and are discussed below:

- Theme 1: The design and implementation of a programme can influence parents' decision to consent
- Theme 2: An existing relationship between professionals and parents is valued and used as a tool parents use to help them make a choice
- Theme 3: Parents gain information and knowledge from a variety of sources some of which are not 'evidence based' but influence parents' decisions as well as the timing of their decisions
- Theme 4: Parent see their role as their child's protector but what they are protecting their child from varies and is dependant of their view of what is a threat and their child's level of susceptibility

- Theme 5: Parents felt the responsibility of making the 'right' choice and anticipated future guilt if they chose incorrectly
- Theme 6: Parents with strong existing beliefs about health and health care find making and exercising their decision easier than those who have less ardent views
- Theme 7: Parents are strongly influenced by their close social and community networks

These themes are now explained in more detail below:

- Theme 1: The design and implementation of a programme can influence parents' decision to consent

Parents are more inclined to provide their consent if vaccine programmes are designed to be minimally disruptive to their usual routine and activities, *i.e.* parents are not required to *do* anything other than provide consent. Programmes delivered in schools are welcomed by parents. For example, one parent quoted in the paper by Gottvall *et al* states

'it becomes more accessible, it rolls along by itself, automatically without having to make an appointment, driving yourself there...it really is good for us parents with limited time and so no...its great.' ¹⁸

Substantive influences such as this do not necessarily change a parent's desire or capacity to make an autonomous decision, but they can influence parents' ability to *act* autonomously. For example, parents may want to protect their child through vaccination, but their work or life situation may hinder or prohibit acting on this decision if to do this they need to take time off work to attend appointments. A quotation from the paper by Robbins *et al* encapsulates this.

'All I had to do was sign the form and I knew it was taken care of. It wasn't something I had to then think about having to do after school or make an appointment. It wasn't anything extra. It was something that was done.' ¹⁹

All of the programmes in the literature gave primacy to parents' consent, but the children themselves were expected to facilitate this by acting as a communication conduit for the consent information and decisions that passed from between professional to parent, and some parents found this problematic. For example, in Fisher *et al* one parent expressed this well.

*'Even though its prioritising parents' consent, you're putting that responsibility on the child to get that important literature home and get it processed and get it back into school but they're not actually responsible for it. It's kind of strange.'*²⁰

Where young people were involved in this way they had an opportunity to exercise their own autonomy not to have the vaccine by intercepting the information delivery and return process. For example, in Fisher *et al*²⁰ and immunisation nurse commented. *'I think they hide the form....'* and *'If they are scared the needle's going to be really big, they just won't give it to their parents'*.

- Theme 2: An existing relationship between professionals and parents is valued and used as a tool parents use to help them make a choice

Parents' views can be influenced by the level of personal involvement that professionals have at the time of decision making, *i.e.* procedural relational autonomy is influenced. For example, the paper by Dorell *et al*²¹ reported high percentages of non-vaccination where parents stated

'...they did not receive a recommendation from a health care professional for their adolescent to receive the vaccine...'

Parents viewed advice by Health professionals' as a positive influence and a help to their decision making. This is seen in papers by Hofman *et al*,²² Fisher *et al*,²⁰ and Gottvall *et al*¹⁸ where parents attached importance to the views of health professionals in general, which conferred a level of trust in their opinions as 'experts' who would act in the best interests

of their children. The high esteem that professionals were held in was the key influencing factor. Parents seemed to accept, and indeed expect, that health professionals should act paternalistically. One parent is quoted in the paper by Gotvall *et al*¹⁸ as saying

'It has been discussed and investigated and they have finally decided that this is what people must do, so I feel that we must, in any case I trust that the recommendations are right.'

However, the level of influence on parental decision making varies; greater influence is seen where professionals and parents have a pre-existing relationship. Dempsey *et al*²³ reported that most Mothers, who had declined their consent, had not seen their usual health care provider about childhood vaccinations. This implies that the depth of influence is based less on *what* is said or recommended, and more on *who* says it.

- Theme 3: Parents gain information and knowledge from a variety of sources some of which are not 'evidence based' but influence parents' decisions as well as the timing of their decisions

Parents gain information from formal, and informal routes, some of which they actively seek out, *e.g.* via the internet or from friends. More formal routes to gain information were often unsolicited by parents, such as information provided by schools or health professionals. The level of trust that a parent places in the source of the information determines the degree of influence it has on their decision making. Vandenburg and Kulig²⁴ report that Canadian Mothers used a variety of sources of information to assist their decision-making, including books, journals, anecdotes, media and internet sources. Hofman *et al*²² also reported that parents sought additional information from similar sources before making a decision. In Fisher *et al*²⁰ parents acknowledge the role of the internet in decision making and that this can be a positive or negative experience. This shows that for some parents to make an autonomous decision, it is important that the information on which this is based is obtained independently from multiple sources and not made solely on information provided by health professionals. The desire for supplementary information stems not from a mistrust of health professionals, *per se*, but from a mistrust of the 'business' of health care *e.g.* from pharmaceutical companies, or payments to Doctors in market-driven health economies. One parent remarked:

*'There is a lot of literature out there how the pharmaceutical companies really push the doctors into pushing vaccines, and they get their perks and their trips.'*²⁰

Regardless of the source of the information, parents expressed a preference for face to face communication over written information in Fisher *et al*²⁰ and Gotvall *et al*¹⁸ who remarked

'...parents requested a dialogue with the school nurse in addition to the written information provided.'

This reveals that even if the (formal) source was acceptable, the format of the information was still insufficient to facilitate decision making. The formal, one-way transfer of written information often used by health care providers is in contrast to the personalised informal routes of information favoured by parents. A parent in the study by Vandenberg and Kulig²⁴ demonstrates this when saying

'We asked quite a few different people around when we were trying to decide...like our friends...'

Several of the papers reported that parents felt they did not have sufficient information or knowledge and so actively delayed, or actively avoided making a decision altogether. For example, Dorell *et al*²¹ reports

'...a significantly high proportion of parents responded that 'lack of knowledge' was the main reason for not receiving the vaccine.'

The paper by Gottvall *et al*¹⁸ includes *'I thought it was a pretty hard decision. I got quite insufficient information in the papers that came home from the school...'* In Fisher *et al*²⁰ a parent commented

'If they could just put the information out in a clearer form everybody would be able to understand it.'

Where parents do not hold a strong existing belief about vaccination, they can find it difficult to make any kind of choice where they feel they have not had sufficient information and what has been provided was not clear or easy to understand. Many parents felt uncertain on the topic of vaccinations and if they should consent or not. For example, one parent in Gottvall *et al*¹⁸ commented

'Vaccinations are good and bad, think about the Swine flu from recent memory. The hysteria and how it was after, so one can feel that it has become difficult with vaccinations...'

Parent who are uncertain about their decision could be vulnerable to external persuasion, or even coercion from a variety of sources including, social networks, traditional media and the internet. Ironically if health professionals adopt a stance of non-interference with the belief that this enables parents to make an autonomous choice, it can create an information void for parents who then seek additional information to supplement what has been provided by health professionals, but which parents feel is lacking. For example, Robbins *et al*¹⁹ reports one parent as saying *'...what aren't they telling us?'*

Conversely, some parents who decide not to vaccinate their children report that any information provided has very little influence on their decision making. A parent in the study by Vandenberg and Kulig²⁴ reported

'...we are flat out, like, we aren't immunizing, so I've always kind of just pushed it [information] out as fast as they try to give it to me.'

- Theme 4: Parent see their role as their child's protector but what they are protecting their child from varies and is dependant of their view of what is a threat and the level of their child's susceptibility

Fear of the potential side effects of the vaccine can influence parental consent decisions. For some parents this fear was grounded in personal experience, while for others it is a distrust of pharmaceutical companies and research programmes. Fear negatively influenced some parents to refuse their consent, but for some this influenced the timing of decisions and they exercised their parental autonomy through purposefully delaying their decisions. The quotation reported by Dempsey *et al*²³ exemplifies this

'I was going to take a year or possibly two as a wait and see approach to see what other studies come about regarding this vaccination.'

This illustrates that while parental fear does influence consent decision making in general, the strategy for making the decision is also influenced, for example some parents chose to delay their decision until their child was older.

Parents' perceptions of their daughters' level of risk of contracting a disease, *e.g.* Cancer, also influenced their decisions. Some parents had personal or family experience of cervical cancer, which strongly influenced their decision to vaccinate, others appeared to detach any susceptibility that young females may face from their own child. For some this was due to their daughters' age (vaccination took place at approximately 11/12 years old) and despite knowing that the vaccination is most effective when administered prior to any sexual activity, these parents felt that this was still too young for *their* daughter. Some parents also felt the decision was irrelevant to them because their daughters would only have sex with their husbands and therefore would not be at risk. In both situations this was a decision that forced parents to consider their young daughters as independent sexual beings, which for many was uncomfortable either due to culture, age, or

both. Parents would rather trust that the way they had raised their child *i.e.* not having sex early or out of marriage, would protect them. For example Robbins *et al*¹⁹ reported

'My understanding is that the more partners you have the greater the risk you have of picking up a sexually transmitted disease. I am confident my girls will not be like that.'

Perceived threat and susceptibility affect how relevant parents feel particular decisions are to them and act accordingly. Lack of relevance felt by parents can lead to consent refusal or passive non-decisions.

- Theme 5: Parents felt the responsibility of making the 'right' choice and anticipated future guilt if they chose incorrectly

Feelings of parental responsibility influenced decisions and motivated parents to both provide and refuse consent. In tandem with the strong desire to make the 'right' choice in their role as decision maker, was the stimulus to avoid future guilt if anything went wrong with regard to long-term side effects or contracting the disease. For some parents this motivation meant that they took advantage of their decision-maker status, thus recognising their current position of power in a dynamic relationship. This resulted in a sense of urgency to act before their window of opportunity to do so closed *i.e.* before it became expected, either legally or as a social norm, that their child would make their own decision. For example, in Fisher *et al*²⁰ one parent acknowledges the possibility of this change in decision making status

'...it's better if this just done – if it's rolled out, they just don't have a choice. I guess they do have a choice, don't they? That is the problem.'

All parents who stated they preferred being the decision maker rather than their child exercising their own choice indicating they felt they were acting in their child's best interests. This situation was more apparent in parents who provided consent. One parent quoted by Dempsey *et al*²³ admitted

'I figured now is the best time because it's a time that I can make the decision for her...' These parents appeared happy to exercise their relational (procedural) autonomy based on *their* true authentic wishes, not necessarily those of their daughter, trusting that they as parents know best. Here children are seen as an extension of their parents and not separate beings with equally valid views of their own.

For others the weight of this decision bore down on them. These parents often delayed their decision so that either a joint decision could be made between parents and daughter, or their daughter could decide for herself when older. These parents were considerably less confident to provide their consent but in choosing to delay they were making an autonomous choice. These parents seem unable to trust themselves to make the consent decision, for example Dempsey *et al*²³ reported

'I'm just so bothered by my decision having an impact on her in later life.'

Daughters may also apply external pressure and try to influence parents' decision making. For example, Hofman *et al*²² quote

'Mom, cervical cancer, you wouldn't want me to get it would you?'

- Theme 6: Parents with strong existing beliefs about health and health care find making and exercising their decision easier than those who have less ardent views

Consent decisions by parents are strongly influenced by their existing beliefs. The more strongly held the belief, the greater the influence. No papers reported or inferred that a parent with strong existing belief about vaccinations changed

their consent decision after receiving information provided by health services or other sources. The view that decisions are based on rational weighing-up of information is not supported by the actions of parents with strong existing views. For some parents this decision was not one that they needed to make because 'health' was viewed fatalistically. For example, Vandenburg and Kulig²⁴ report

'If my child [were to] get sick, I would consider that...God's hand'.

For others pursuing 'health' was something to be actively courted, whether through natural means such as eschewing vaccines in favour of boosting the child's immune system, or embracing medicine and any opportunity to benefit from its' advances e.g. *'I think vaccines against anything are worthwhile'*¹⁹. Parents with strong existing beliefs are likely to make decisions which are less pervious to external professional influence than parents without such convictions.

- Theme 7: Parents are strongly influenced by their close social and community networks

Belonging to a religious community and the influence that this has on parents' decisions was specifically researched by Shelton *et al.*²⁵ Parents active in religious communities were less likely to provide their consent to the HPV vaccine. The influence of religion was also highlighted by Robbins *et al.*¹⁹ Fisher *et al.*²⁰ and Krawczyk *et al.*²⁶ The evidence here is not conclusive in that religious affiliation always results in refusal of consent for HPV. What can be inferred is that the very action of belonging to a close-knit community group with strongly held views means collective community endorsement is highly influential, for example *'It's not [a decision you make] on an individual basis.'*¹⁹ These parents adhere to a code of community accepted behaviour where decisions are based on explicit and trusted social norms. Parents in these situations, especially with regard to some religious communities, are often unquestioning of these norms. Hofman *et al.*²² quote

'With us, in our [Turkish Muslim] community it's unusual to have sex before marriage...that is the way it is in our culture, you marry only once and only have sexual contact with each other once you're married. So that's another reason not to do it'.

This type of collectivism is also exhibited by parents living in secular communities with a culture of egalitarianism. For these parents decisions are influenced by social norms that prioritise community solidarity. For example,

*'I think it's a social responsibility...not to participate...I think, is irresponsible to others'*¹⁸

In this situation parents trust that others will act similarly to protect the community population. Whether the influence of social norms stems from religion or solidarity, or any other collective belief, these views have been so shaped by the social norms of their community networks that they cannot be differentiated from parents' authentic selves.

Discussion

The purpose of this paper is not to advocate that parents' make a 'right' choice according to health professionals wishes, therefore increasing the number of parents' who consent, but to explore what influences parents to choose in the way that they do.

Our findings identify seven key areas that influence parents when deciding to provide or refuse their consent for their child to participate in a vaccination programme. These influences can act as both a barrier and facilitator for parents' decision making. Some influences are practical, for example if the vaccination programme is delivered in school more parents are likely to agree to participation for their children. Whereas some influences are less tangible but no less keenly experienced, such as those emanating from social norms. In the papers reviewed here this can be seen in views expressed about the relevance of HPV vaccine based on the expected behaviour for girls. In the current COVID-19 pandemic we can see the

influence of social norms through the epidemiology of vaccine uptake, which is socially patterned.²⁷ What is clear from these findings is that parent's consent decisions are influenced by more than the factual, evidence-based information provided by health professionals. In our review, health professionals use the term 'informed consent' to mean 'consent provided after receipt of formally produced information', when in fact parents can become 'informed', in favour or against vaccination from a host of different routes, *e.g.*, from friends, family, and other forms of media. The overarching influence on parents' decision is trust and for the most part, it is the trust that parents put in to source of the information that has the largest influence. The objective factual information given to parents by professionals comes from a source that is trusted by well-meaning professionals, *i.e.* peer-reviewed scientific evidence, often a positivist tradition. The assumption is that this will also have traction with parents but in reality, many parents find this type of information unhelpful. It is the very neutrality of the information that turns parents off. Parents respond to opinion-based information from a trusted source with whom they have a personal relationship. It is this juxtaposition of what professionals and parents consider a trusted source that makes the information credible and therefore of value that can be a barrier. Parents then turn to other sources of information from they do trust, and these ultimately have a greater influence on their decisions as a result. The 'conduit and container'²⁸ style of communication where health professionals relay evidence to parents makes the error of assuming parents have no other credible information on which to base their decision. This format is often used under the misunderstanding that detailed factual written information will make parents 'fully informed' and free from any potential bias that may be conveyed from other sources. It is simplistic to think that parents are empty vessels to be filled with objective information that leads them to make the 'right' choice.

The traditional view of decision making *i.e.* one that assumes parent's will base consent decisions on impartial and factual information from health professionals before making an objective decision is outdated. A new understanding of what influences individual choices is emerging and has been discussed by a small number of scholars in the field of ethics. Authors such as Owens and Cribb,²⁹ Christman,³⁰ Mackenzie and Stoljar³¹ argue that consent decision making is based on twin elements of substantive and procedural autonomy. Parents' substantive autonomy is influenced by practicalities such as the organisation and delivery of programmes *e.g.* if vaccination programmes are delivered in a way that is easy to access such as via schools. Procedural influences on parents' autonomous consent decisions are those that effect authentic choices. For example, in the findings above this is seen in the social norms that permeate the theme on 'existing beliefs'. Relational autonomy such as this and the influence it has on a parents' ability to make an informed consent decision is rooted in an understanding of people and the complexity of their lives, embracing the fact that people are inherently social beings that are politically and economically located in society.^{32,33}

The contemporary medical ethical stance of 'non-interference' leaves parents at a disadvantage. Fear of appearing paternalistic and not recognising the experiential and emotive way that parental consent decisions are influenced impoverishes not strengthens autonomous choice. By leaving parents vulnerable in this way health services are not fully meeting their responsibilities towards parents as decision makers charged with acting in the children's best interest. Nor is the State (via health services) meeting its responsibility to safeguard the best interests of the children themselves, or the future adults they will become. Vaccination programmes take place within societies where, to a greater or lesser extent, government structures have taken on some responsibility for child health, hence the existence of these programmes. It is the way in which these programmes are operationalised that undermines this responsibility, particularly if judged against Article three of the United Nations Convention of the Rights of the Child.³⁴ This states that the best interest of the child should be the primary concern, particularly with regard to budget, policy and law makers. To achieve this health services across the globe may need to adopt more supportive and enabling programmes that reflect the reality of decision making and not an unrealistic notion of it, particularly if the current pandemic is to be overcome through population based vaccination programmes that include children.

Conclusion

By understanding that parents' consent decisions are influenced in a variety of ways where information from a complex web of individual of circumstances shape their final choice, programme managers such as those in charge of rolling out the COVID1-9 vaccination programme to children, can (and should) make arrangements that explicitly employ additional strategies to support a relational approach to consent decisions. Our results show that we no longer ought to think of consent for public health interventions in simplistic reductionist terms *i.e.* where medically factual information (usually written) is provided by health professionals with little additional professional input and this is an outdated mode of operating based on medical model of health. It ignores the wider social and structural influences on health, which public health seeks to address. By adopting relational notions of autonomy (procedural and substantive) when planning consent processes for vaccination programmes, both State and parents will be better able to enact their shared duty to operate in the best interest of children.

Declarations

- Ethics approval and consent to participate.

Not applicable

- Consent for publication.

Not applicable

- Availability of data and materials

The datasets used and/or analysed during the current study are available from via <https://osf.io/nkd5g/>

- Competing interests.

The authors declare that they have no competing interests

- Funding.

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- Authors' contributions.

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Not applicable

References

1. Gillick v West Norfolk and Wisbech AHA (1986) Available at: <http://www.bailii.org/uk/cases/UKHL/1985/7.html> (Accessed: 26 November 2021).
2. European Agency for Fundamental Rights. *Consenting to medical treatment without parental consent.* (2018) Available at: <https://fra.europa.eu/en/publication/2017/mapping-minimum-age-requirements/consent-medical-treatments> (Accessed: 26th November 2021)
3. Reuters. UAE rolls out Sinopharm COVID-19 vaccine to children aged 3-17. Available at: <https://www.reuters.com/world/middle-east/uae-rolls-out-sinopharm-covid-19-vaccine-children-aged-3-17-2021-08->

02/ (Accessed 26th November 2021)

4. Centre for Disease Control. COVID-19 Vaccines for Children and Teens. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/children-teens.html> (Accessed 26th November 2021)
5. World Health Organisation. Interim Statement on Covid-19 vaccination for children and adolescents. (2021) Available at: <https://www.who.int/news/item/24-11-2021-interim-statement-on-covid-19-vaccination-for-children-and-adolescents> (Accessed 26th November 2021)
6. Barnes, O. and Burn-Murdoch, J. (2021) Boris Johnson urges Britons to get Covid booster jabs. Available at: <https://www.ft.com/content/cbfc42f7-0b32-4af3-a3bd-054f6bcde922> (Accessed: 3 December 2021)
7. General Medical Council (GMC) (2019) *Good Medical Practice*. Available at: <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors#good-medical-practice> (Accessed: 6 August 2021).
8. Nursing and Midwifery Council (NMC) (2018) *The Code*. Available at: <https://www.nmc.org.uk/standards/code/> (Accessed: 6 August 2021).
9. Dworkin, G. (2014) Paternalism. Available at: <http://stanford.library.usyd.edu.au/archives/sum2014/entries/paternalism/> (Accessed: 6 August 2021).
10. Great Britain. Children Act 1989: Elizabeth II. Chapter 41 (1989) London: The Stationery Office.
11. Moher, D., Liberati, A., Tetzlaff, J. and Altman, D. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *The British Medical Journal*. 339:b2535 (2009) doi: <https://doi.org/10.1136/bmj.b2535>
12. Great Britain. Mental Capacity Act 2005: Elizabeth II. Chapter 9 (2005) London: The Stationery Office.
13. Sandelowski, M. and Barroso, J. (2007) *Handbook for Synthesizing Qualitative Research*. New York: Springer.
14. Thomas, J., Harden, A. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Methodol* **8**, 45 (2008). <https://doi.org/10.1186/1471-2288-8-45>
15. Economic and Social Research Council (2009) *Methods for the synthesis of qualitative research: a critical review*. Available at: <http://eprints.ncrm.ac.uk/690/1/0109%2520Qualitative%2520synthesis%2520methods%2520paper%2520NCRM.pdf> (Accessed: 6 August 2021).
16. Malpass A, Shaw A, Sharp D, Walter F, Feder G, Ridd M, Kessler D. "Medication career" or "moral career"? The two sides of managing antidepressants: a meta-ethnography of patients' experience of antidepressants. *Soc Sci Med*. 2009 Jan;68(1):154-68. doi: 10.1016/j.socscimed.2008.09.068.
17. Critical Appraisal Skills Programme. Available at: <https://casp-uk.net/casp-tools-checklists/> (Accessed: 6 August 2021).
18. Gottvall M, Grandahl M, Höglund AT, Larsson M, Stenhammar C, Andrae B, Tydén T. Trust versus concerns-how parents reason when they accept HPV vaccination for their young daughter. *Ups J Med Sci*. 2013 Nov;118(4):263-70. doi: 10.3109/03009734.2013.809039.
19. Robbins SC, Bernard D, McCaffery K, Brotherton JM, Skinner SR. "I just signed": Factors influencing decision-making for school-based HPV vaccination of adolescent girls. *Health Psychol*. 2010 Nov;29(6):618-25. doi: 10.1037/a0021449.
20. Fisher, H., Evans, K., Ferrie, J. *et al*. Young women's autonomy and information needs in the schools-based HPV vaccination programme: a qualitative study. *BMC Public Health* **20**, 1680 (2020). <https://doi.org/10.1186/s12889-020-09815-x>
21. Dorell C, Yankey D, Strasser S. Parent-reported reasons for nonreceipt of recommended adolescent vaccinations, national immunization survey: teen, 2009. *Clin Pediatr (Phila)*. 2011 Dec;50(12):1116-24. doi: 10.1177/0009922811415104.

22. Hofman R, van Empelen P, Vogel I, Raat H, van Ballegooijen M, Korfage IJ. Parental decisional strategies regarding HPV vaccination before media debates: a focus group study. *J Health Commun.* 2013;18(7):866-80. doi: 10.1080/10810730.2012.757390.
23. Dempsey AF, Abraham LM, Dalton V, Ruffin M. Understanding the reasons why mothers do or do not have their adolescent daughters vaccinated against human papillomavirus. *Annals of Epidemiology.* 2009 Aug;19(8):531-538. doi: 10.1016/j.annepidem.2009.03.011.
24. Vandenberg SY, Kulig JC. Immunization Rejection in Southern Alberta: A Comparison of the Perspectives of Mothers and Health Professionals. *Can J Nurs Res.* 2015 Jun;47(2):81-96. English, French. doi: 10.1177/084456211504700206
25. Shelton RC, Snavelly AC, De Jesus M, Othus MD, Allen JD. HPV vaccine decision-making and acceptance: does religion play a role? *J Relig Health.* 2013 Dec;52(4):1120-30. doi: 10.1007/s10943-011-9553-x.
26. Krawczyk A, Knäuper B, Gilca V, Dubé E, Perez S, Joyal-Desmarais K, Rosberger Z. Parents' decision-making about the human papillomavirus vaccine for their daughters: I. Quantitative results. *Hum Vaccin Immunother.* 2015;11(2):322-9. doi: 10.1080/21645515.2014.1004030.
27. Caspi, G., Dayan, A., Eshal, Y., Liverant-Taub, S., Twig, G., Shalit, U., Lewis, Y., Shina, A. and Caspi, O. Socioeconomic disparities and COVID-19 vaccination acceptance: a nationwide ecological study. *Clinical Microbiology and Infection.* **27**, 1502-1506 (2021) <https://doi.org/10.1016/j.cmi.2021.05.030>
28. Manson, N. and O'Neill, O. (2007) *Rethinking Informed Consent in Bioethics.* Cambridge. Cambridge University Press.
29. Owens, J. and Cribb, A. Beyond choice and individualism: understanding autonomy for public health ethics. *Public Health Ethics.* **6**, 262-271 (2013) <https://doi.org/10.1093/phe/pht038>
30. Christman, J. Relational Autonomy, Liberal Individualism, and the Social Constitution of Selves. *Philosophical Studies* **117**, 143–164 (2004). <https://doi.org/10.1023/B:PHIL.0000014532.56866.5c>
31. Mackenzie, C. and Stoljar, N. (2000) *Relational Autonomy in Context: Feminist Perspectives on Autonomy, Agency and the Social Self.* New York: Oxford University Press.
32. Kenny NP, Sherwin SB, Baylis FE. Re-visioning public health ethics: a relational perspective. *Can J Public Health.* 2010 Jan-Feb;101(1):9-11. doi: 10.1007/BF03405552.
33. Baylis, F., Kenny, N. and Sherwin, S. (2008) 'A relational? account of public health ethics', *Public Health Ethics*, 1(3), 196-209. <https://doi.org/10.1093/phe/phn025>
34. Unicef (1989) United Nations Convention on the Rights of the Child. Available at: <https://www.unicef.org.uk/what-we-do/un-convention-child-rights/> (Accessed: 6 August 2021)

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