

MINI-REVIEW



Dismissal policies for vaccine refusal among US physicians: a literature review

Tamara B. Garcia^a and Sean T. O’Leary^{a,b}

^aDepartment of Pediatrics, University of Colorado Anschutz Medical Campus and Children’s Hospital Colorado, Aurora, CO, USA; ^bAdult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS), Aurora, CO, USA

ABSTRACT

Childhood vaccination is one of the greatest public health achievements of the 20th century, yet increasingly, parents question the safety of and need for vaccines. This has led to increased rates of vaccine delay and refusal and outbreaks of vaccine-preventable diseases. Physicians struggle with how to respond to families who refuse vaccines, as there are few known effective interventions to convince a family to vaccinate. In the United States, the practice of dismissing families for vaccine refusal appears to be increasing as a strategy for dealing with vaccine refusal. In this review, we review the literature surrounding this controversial practice, starting with the impact that vaccine-refusing families have on medical practices, followed by a review of dismissal policies of US physicians, and ending with a discussion of the ethics of this practice.

ARTICLE HISTORY

Received 23 August 2019
Revised 9 January 2020
Accepted 28 January 2020

KEYWORDS

Vaccine; policy; pediatrician;
refusal; ethics; hesitancy

Introduction

Childhood vaccination is widely considered one of the greatest public health interventions of the 20th century.¹ Immunizations have prevented over 300 million illness and 732,000 deaths in US children born between 1994 and 2013.² Immunizations have eradicated smallpox, drastically reduced the incidence of polio worldwide, and have significantly decreased the rates of other diseases such as rubella, diphtheria, and *Haemophilus influenzae* type b infections. Childhood vaccination rates remain relatively high,³ in part due to policies such as requiring immunizations for school entry.⁴ However, as vaccinations have reduced the public memory of vaccine preventable diseases (VPDs), the need for and safety of vaccinations have come into question.⁵ Parental attitudes regarding immunization range from minor concerns but willingness to vaccinate to requests to delay or spread out vaccinations to outright refusal.^{6,7} A recent study determined that nearly 20% of families seen by pediatricians request to delay at least one vaccine.⁸ Additionally, 87% percent of pediatricians reported experiencing vaccine refusals in 2013, an increase from 75% in 2006.⁹ Consistent with this increase, personal belief exemption rates have increased at a rate of 6% per year.¹⁰ Personal belief exemptions, sometimes referred to as philosophical exemptions, are exemptions to vaccinations required for school entry that are available in 15 US states, with varying degrees of difficulty for obtaining these exemptions. Forty-five states allow religious exemptions to vaccination.

Reasons frequently cited for parental refusal include belief that vaccines are unnecessary, concern for safety, discomfort and overwhelming the immune system by having multiple shots at once.⁹ Parents receive information about vaccine safety and efficacy from a number of mediums, but health

care providers, and in particular pediatricians, remain the most trusted source of vaccine information.^{11,12} However, education alone may do little to impact decision-making around vaccination in some hesitant parents. One study examining the effect on education on intent to vaccinate with MMR assigned parents to receive one of four interventions: 1) information explaining the paucity of evidence that MMR causes autism; 2) information about the danger of measles, mumps, and rubella infections; 3) images of children with measles, mumps, or rubella; 4) a narrative about an infant who almost died from measles.¹³ None of these interventions increased intent to immunize, and they often backfired. Parents who received information about the lack of evidence of MMR causing autism were less likely to vaccinate, and parents who saw images of sick children or read the narrative about a child with measles had a higher belief in serious side effects of the vaccine. Thus, while providers continue to educate families and address concerns during visits, many struggle to influence intention to vaccinate. Physicians have reported using many methods to convince families who refuse (or who are hesitant about vaccines) to vaccinate their children according to the recommended schedule, including requiring parents to sign a vaccine refusal form, recommending that parents inform on-call and urgent care providers about their child’s vaccination status, and personal narratives, yet report few that any of these techniques are particularly effective.^{8,14} Physicians also report spending significant amounts of time discussing vaccines with vaccine-hesitant parents, and close to half report decreased job satisfaction because of having to deal with vaccine hesitancy. Partially as a result of these difficulties, physicians, and pediatricians in particular, are increasingly using the controversial practice of dismissing vaccine refusing families from their care.^{9,14} Dismissal policies for vaccine refusal appear to be relatively

common among US pediatricians, and may come in any number of forms. For example, some physicians may use a dismissal policy only in the clinical encounter, when facing a parent refusing vaccines, with a statement such as “I believe so strongly in the importance of vaccines that unless you agree to follow the recommended vaccination schedule for your child, I think it is best that you seek care elsewhere.” Others may simply have a clinic-wide policy that they will only accept patients in the practice who agree to follow the recommended schedule. Unfortunately, there are limited data on how these policies are implemented, and only a few national surveys regarding this practice. While many have written about the topic, few have actually researched the frequency of implementation of various dismissal policies or the impact on immunization rates. In this article, which is based on the experiences and practices of US physicians who provide pediatric care, we review the existing literature on the impact of accommodating unvaccinated patients on physician workflow and clinic operations, the prevalence of dismissal policies of families who refuse vaccines, characteristics of pediatricians who dismiss families from their practices, and the ethical implications of dismissal for vaccine refusal. We identified articles using a PubMed search of the terms “vaccine,” “refuse,” and “dismiss.” This search yielded 52 results. Articles discussed here include reviews that discussed the impact of vaccine hesitancy on physicians or practices, reviews that examine the bioethical considerations of practice dismissal of families who refuse vaccines, and articles presenting original data related to dismissal for vaccine refusal. Articles that did not include data from US physicians and physicians who do not provide pediatric care were excluded.

Impact of unvaccinated patients on practices and physicians

While unvaccinated and under-vaccinated patients constitute a minority of patients in most pediatric practices, their presence can impact practice operations and dynamics. First, unvaccinated children who contract a vaccine-preventable disease and seek care in an office could expose young infants who have not completed the childhood immunization series or immunocompromised children to these diseases with potentially serious complications. Some providers have posited that physicians should be able to honestly tell families they will not be unnecessarily exposed to such VPDs in the office. If the risk is not minimized by excluding unvaccinated children from the practice, the office should disclose to all families the rare but potential risk of being exposed to vaccine preventable diseases while in the office.¹⁵ Families who refuse or delay immunizations also often require extra time to discuss vaccinations at each visit, with more than half of pediatricians reporting spending more than 10 minutes discussing vaccines with hesitant parents.⁸ The average well child visit in the US is estimated to be about 18 minutes,¹⁶ so these physicians are spending more than half of these visits discussing vaccines, leaving less time to address other important behavioral and preventive topics.¹⁷ Physicians who care for vaccine-hesitant families may also experience higher levels of burnout and lower job satisfaction.⁸ Retaining unvaccinated

patients in a practice is associated with some legal risk as well. Pediatricians have been sued by third parties who contracted a vaccine-preventable disease from the physician's patient if the physician failed to inform the patient how to avoid spreading the disease.¹⁸ Pediatricians have also been sued for failing to fully inform families about all of the consequences of a vaccine-preventable disease and for failing to offer the vaccine at a later visit. The average payment claim for malpractice lawsuits in pediatrics is greater than \$500,000 which could exceed the maximum coverage of some malpractice policies, placing the pediatrician at personal financial risk.¹⁹ In other words, there are potential legal risks, both real and perceived, for caring for vaccine-refusing families. From an office financial perspective, the practice does not receive administration fees or any other remuneration when a vaccine is refused even if there is a lengthy discussion, which could reduce payments to the office by 2–10% for unvaccinated patients.¹⁵

Dismissal policies for vaccine refusal among US pediatricians

While data on patient dismissal due to vaccine refusal are limited, there have been three studies based on national surveys to explore the prevalence of dismissal policies as well as characteristics of physicians who routinely dismiss unvaccinated patients from their practice. The first study was among pediatricians randomly selected from the American Academy of Pediatrics (AAP) directory in 2002 (the AAP's Periodic Survey).²⁰ When faced with a family who refused specific vaccines, 28% of pediatricians reported they would ask the family to seek care elsewhere, and 39% reported they would refer a family for refusing all vaccines. Of the physicians who would dismiss for refusing some vaccines, only 27% reported that the type of vaccine refused was an “extremely important” factor in their decision to dismiss. Factors most often ranked “extremely important” in the decision to dismiss included lack of shared goals and lack of trust. A minority of pediatricians (15% for partial refusal and 12% for total refusal) cited fear of litigation as an extremely important factor when deciding to dismiss. Concern for decreased reimbursement was cited as irrelevant for 94% of pediatricians facing partial refusal but only for 12% of pediatricians facing total refusal. There was no difference in age, sex, number of years in practice, or number in patients seen per week between pediatricians who would or would not dismiss; however, individuals who dismiss assigned greater importance to 4 vaccines (DTaP, IPV, MMR, and *Hemophilus influenzae* type b) than did pediatricians who would not dismiss families.²⁰

In a separate study also using the AAP's Periodic Survey mechanism, Hough-Telford and colleagues analyzed two surveys from 2006 and 2013 designed to assess pediatricians' perceptions on the rates of vaccine refusals and delays as well as the prevalence of dismissals.⁹ The 2006 survey was sent to 1620 AAP members and the 2013 survey to 1622, with up to six follow up contacts for both surveys. As with the 2002 survey, analyses were limited to respondents who provided vaccines, resulting in analytic samples of 629 and 627 for 2006 and 2013, respectively. In both surveys, there were questions regarding: demographics,

experiences with vaccine refusals, reasons for refusal, and dismissal policies for vaccine refusal. The number of pediatricians who always dismiss families for vaccine refusal increased from 6.1% in 2006 to 11.7% in 2013. In 2013, pediatricians dismissed an average of 2.6 patients in the year preceding the survey, and the mean age of the dismissed child was 11 months. Eighty percent in 2006 and 87% in 2013 of pediatricians who dismissed patients reported lack of trust between physicians and families as a primary reason for their decision. Eighty-one percent of pediatricians in 2013 also indicated concern for other patients as a rationale for dismissal (question not asked in 2006). Older physician age was associated with an increased likelihood of always dismissing patients. No differences in gender, region of the country, or practice location (urban, suburban, or rural) were identified in the initial survey. However, in the 2013 survey, pediatricians in the West were less likely to dismiss patients compared with pediatricians in the Midwest or South, and providers who practice in suburban locations were more likely than those in urban, inner-city practices to dismiss.⁹

In another study, O'Leary *et al.* surveyed pediatricians and family physicians regarding dismissal practices between June and November 2012 using a survey developed in collaboration with CDC. This survey was part of the Vaccine Policy Collaborative Initiative, a long-standing cooperative agreement between CDC and the University of Colorado which uses quota sampling to develop representative samples of US primary care providers to answer questions relevant to vaccination policy. The study was among 405 pediatricians and 410 family physicians, with response rates of 70% and 61% for pediatricians and family physicians, respectively. Questions were asked regarding demographics, prevalence of refusal, and practices related to refusal. For questions related to refusal, respondents were provided the following statement: "The following questions are regarding parents who refuse a vaccine due to safety or other concerns. By refusal, we mean outright refusal without acknowledging that the vaccine will be considered at a later date." The authors performed bivariate analyses examining the association of physicians' experiences and practices and the presence or absence of a state philosophical exemption law. The authors also performed a multivariable analysis examining the association of often/always dismissing families for refusing 1 or more vaccines in the primary series for their child with the following independent variables: gender, age, practice setting, practice location, practice region, presence or absence of a philosophical exemption, and degree of difficulty in obtaining an exemption (easy versus medium/difficult). The multivariable analysis was performed only among pediatricians, as very few family physicians reported dismissing families. Overall, 14% of surveyed physicians often or always dismissed families for refusing one or more vaccines in the infant series, although there were significant differences between the specialties, with pediatricians dismissing more frequently than family physicians (21% vs. 4%). This study found that 9% of pediatricians in states with philosophical vaccination exemptions often or always dismiss patients for refusing vaccines in the infant series compared with 34% of pediatricians in states that do not allow philosophical exemptions. The authors speculated that it may be that vaccine refusal is considered less societally

acceptable in states that do not have philosophical exemption laws and this increases physicians' willingness to dismiss. They also observed a correlation of increased dismissal rates in states with more strict exemption policies compared with states with lenient policies²¹ (12% in states with easy policies, 22% with medium policies, and 28% with difficult policies). Given that vaccination rates are higher in states with stricter exemption policies, the authors raise the question of whether or not dismissal policies may be playing a role in the higher rates, since these "little p" policies are enforced essentially from birth, whereas school exemption policies are enforced only at school entry. In the multivariable analysis, factors associated with dismissing families were private practice setting (compared with managed care or hospital/university/community health care settings), practices located in the South, and the absence of a philosophical exemption policy.¹⁴

Ethics of dismissal for vaccine refusal

The ethics behind dismissing families for refusing vaccinations are complex, as evidenced by the number of articles published both supporting and opposing dismissal based on ethical grounds. One argument made by individuals who support dismissal is the potential risk that unvaccinated children pose to other patients in the practice and that healthcare providers have a duty to minimize this risk.¹⁵ Several counterarguments to this point have been made including the idea that the absolute risk of having an unvaccinated or under-vaccinated patient in the waiting room with a vaccine-preventable disease is small and substantially less than the risk posed by patients with other infections for which vaccines do not exist. Beyond this, requiring that patients be vaccinated does not guarantee exclusion of children infected with vaccine-preventable diseases from the practice, as young children too young to be vaccinated may have such as diseases, as well as children who contract a vaccine-preventable disease despite being fully vaccinated.²² Some argue strongly against dismissing families in favor of maintaining a relationship of open communication and trust as the best strategy for addressing vaccine hesitancy.²³ Others have argued that the practice of dismissing families places a burden on providers who remain willing to care for these families.²⁴ Further, if dismissing unvaccinated patients becomes common practice, these children may cluster in a small number of practices and increase the risk of a local outbreak.^{25,26} Some have gone so far as to suggest that rather than dismissing families, parents who continue to refuse vaccines after being informed of the risks should be reported to child protective services for medical neglect.²⁷

There are also many unanswered questions regarding the practice of dismissal which further complicate ethical discussions on the matter. Some argue – in favor of dismissal – that such a stance results in more children being vaccinated, as it is a clear, strong message on the importance of vaccination.^{28,29} However, it is unclear how families who refuse vaccines respond when faced with such a policy.

Ethical principles: autonomy, beneficence, and justice

Several authors have categorized some of the above arguments and others into specific ethical principles. For

example, it has been argued that the ethical principle of autonomy is compromised by physicians who have a dismissal policy, as such a policy can be a form of coercion used to convince hesitant parents to immunize their children.³⁰ The principle of beneficence, meaning helping others, has been argued on both sides of this issue. For example, allowing parents to refuse vaccinations violates the principal of beneficence by putting their children at risk for vaccine-preventable diseases. On the other hand, dismissing patients also potentially infringes on the principle of beneficence as it could limit access to healthcare and increase the likelihood of healthcare disparities.³⁰ Some argue that since dismissal is more likely to limit healthcare access in rural areas with few pediatric providers, it should only be considered in cases where the family has the ability to seek care elsewhere.³¹ Finally, the principle of justice, or treating all patients equally without biases, may be violated. Beyond violating these ethical principles, providers opposing dismissal have argued that patients have the right to determine their plan of care including whether or not they accept vaccines.^{25,30}

American academy of pediatrics policy

Consistent with evolving opinions on the appropriateness of dismissing families for vaccine refusal, the official policy of the American Academy of Pediatrics has changed in recent years. In 2005, the AAP recommended that “pediatricians should avoid discharging patients from their practice solely because a parent refuses to immunize his or her child.”³² The AAP did recognize, however, that in cases where distrust, considerable differences in the philosophy of healthcare, or poor communication develops, a physician may recommend that the family seeks care with another provider or practice.³² In 2016, the AAP changed its policy, stating that “a pediatrician may consider dismissal of families who refuse vaccination as an acceptable option” while acknowledging that the decision to dismiss should not be made without contemplating and respecting the beliefs of the family in question.³³

Conclusion

As vaccine hesitancy has increased in recent years, so has the prevalence of physicians willing to dismiss families for refusing vaccines. Characteristics associated with willingness to dismiss include practicing in a private practice, in the South, in a suburban setting, and in a state without philosophical exemptions. Physicians dismiss patients due to lack of shared goals and trust as well as concern of exposing other patients to vaccine-preventable diseases. While there are ethical arguments that support and oppose dismissal, this remains a controversial practice. Additional research is required to determine whether dismissing influences parents’ decision to vaccinate, both when first confronted with such a policy and in the future, to understand parental attitudes toward healthcare after being dismissed, and where families who are dismissed seek care.

Disclosure of potential conflicts of interest

No potential conflicts of interest were disclosed.

References

- Centers for Disease C, Prevention. Ten great public health achievements—United States, 1900–1999. *MMWR Morb Mortal Wkly Rep.* 1999;48(12):241–43.
- Whitney CG, Zhou F, Singleton J, Schuchat A. Centers for disease C, prevention. Benefits from immunization during the vaccines for children program era - United States, 1994–2013. *MMWR Morb Mortal Wkly Rep.* 2014;63:352–55.
- Mellerson JL, Maxwell CB, Knighton CL, Kriss JL, Seither R, Black CL. Vaccination coverage for selected vaccines and exemption rates among children in kindergarten - United States, 2017–18 school year. *MMWR Morb Mortal Wkly Rep.* 2018;67(40):1115–22. doi:10.15585/mmwr.mm6740a3.
- Omer SB, Salmon DA, Orenstein WA, deHart MP, Halsey N. Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. *N Engl J Med.* 2009;360(19):1981–88. doi:10.1056/NEJMsa0806477.
- Gust DA, Darling N, Kennedy A, Schwartz B. Parents with doubts about vaccines: which vaccines and reasons why. *Pediatrics.* 2008;122(4):718–25. doi:10.1542/peds.2007-0538.
- Leask J, Kinnersley P, Jackson C, Cheater F, Bedford H, Rowles G. Communicating with parents about vaccination: a framework for health professionals. *BMC Pediatr.* 2012;12:154. doi:10.1186/1471-2431-12-154.
- McCauley MM, Kennedy A, Basket M, Sheedy K. Exploring the choice to refuse or delay vaccines: a national survey of parents of 6- through 23-month-olds. *Acad Pediatr.* 2012;12(5):375–83. doi:10.1016/j.acap.2012.06.007.
- Kempe A, O’Leary ST, Kennedy A, Crane LA, Allison MA, Beaty BL, Hurley LP, Brtnikova M, Jimenez-Zambrano A, Stokley S, et al. Physician response to parental requests to spread out the recommended vaccine schedule. *Pediatrics.* 2015;135(4):666–77. doi:10.1542/peds.2014-3474.
- Hough-Telford C, Kimberlin DW, Aban I, Hitchcock WP, Almqvist J, Kratz R, O’Connor KG. Vaccine delays, refusals, and patient dismissals: A survey of pediatricians. *Pediatrics.* 2016;138(3):e20162127–e20162127. doi:10.1542/peds.2016-2127.
- Omer SB, Pan WK, Halsey NA, Stokley S, Moulton LH, Navar AM, Pierce M, Salmon DA. Nonmedical exemptions to school immunization requirements: secular trends and association of state policies with pertussis incidence. *JAMA.* 2006;296(14):1757–63. doi:10.1001/jama.296.14.1757.
- 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.
- O’Leary ST, Brewer SE, Pyrzanowski J, Barnard J, Seveck C, Furniss A, Dempsey AF. Timing of information-seeking about infant vaccines. *J Pediatr.* 2018;203(125–130):e121.
- Nyhan B, Reifler J, Richey S, Freed GL. Effective messages in vaccine promotion: a randomized trial. *Pediatrics.* 2014;133(4):e835–e842. doi:10.1542/peds.2013-2365.
- O’Leary ST, Allison MA, Fisher A, Crane L, Beaty B, Hurley L, Brtnikova M, Jimenez-Zambrano A, Stokley S, Kempe A, et al. Characteristics of physicians who dismiss families for refusing vaccines. *Pediatrics.* 2015;136(6):1103–11. doi:10.1542/peds.2015-2086.
- Block SL. The pediatrician’s dilemma: refusing the refusers of infant vaccines. *J Law Med Ethics.* 2015;43(3):648–53. doi:10.1111/jlme.12306.
- Olson LM, Inkelas M, Halfon N, Schuster MA, O’Connor KG, Mistry R. Overview of the content of health supervision for young children: reports from parents and pediatricians. *Pediatrics.* 2004;113:1907–16.

17. Halfon N, Stevens GD, Larson K, Olson LM. Duration of a well-child visit: association with content, family-centeredness, and satisfaction. *Pediatrics*. 2011;128(4):657–64. doi:10.1542/peds.2011-0586.
18. Bellamy J. A pox on your bank account: failure to vaccinate and its legal consequences. *Science-Based Medicine*; 2010. <https://sciencebasedmedicine.org/a-pox-on-your-bank-account-failure-to-vaccinate-and-its-legal-consequences/>.
19. DeVille K, Goldberg D, Hassler G. Malpractice risk according to physician specialty. *N Engl J Med*. 2011;365:1939 & 1940.
20. Flanagan-Klygis EA, Sharp L, Frader JE. Dismissing the family who refuses vaccines: a study of pediatrician attitudes. *Arch Pediatr Adolesc Med*. 2005;159(10):929–34. doi:10.1001/archpedi.159.10.929.
21. Blank NR, Caplan AL, Constable C. Exempting schoolchildren from immunizations: states with few barriers had highest rates of nonmedical exemptions. *Health Aff (Millwood)*. 2013;32(7):1282–90. doi:10.1377/hlthaff.2013.0239.
22. Diekema DS. Physician dismissal of families who refuse vaccination: an ethical assessment. *J Law Med Ethics*. 2015;43(3):654–60. doi:10.1111/jlme.12307.
23. Diekema DS. Provider dismissal of vaccine-hesitant families: misguided policy that fails to benefit children. *Hum Vaccin Immunother*. 2013;9(12):2661–62. doi:10.4161/hv.
24. Deem MJ, Navin MC, Lantos JD. Considering whether the dismissal of vaccine-refusing families is fair to other clinicians. *JAMA Pediatr*. 2018;172(6):514–16. doi:10.1001/jamapediatrics.2018.0259.
25. Halperin B, Melnychuk R, Downie J, Macdonald N. When is it permissible to dismiss a family who refuses vaccines? Legal, ethical and public health perspectives. *Paediatr Child Health*. 2007;12(10):843–45. doi:10.1093/pch/12.10.843.
26. Bottenheim AM, Cherng ST, Asch DA. Provider dismissal policies and clustering of vaccine-hesitant families: an agent-based modeling approach. *Hum Vaccin Immunother*. 2013;9(8):1819–24. doi:10.4161/hv.25635.
27. Chervenak FA, McCullough LB, Brent RL. Professional responsibility and early childhood vaccination. *J Pediatr*. 2016;169:305–09.
28. Marshall GS, O’Leary ST. Dismissal policies for vaccine refusal. *JAMA Pediatr*. 2018;172(11):1101. doi:10.1001/jamapediatrics.2018.2663.
29. Lessin HR, Hackell JM. Real world vaccine ethics. *J Pediatr*. 2016;175:243–44. doi:10.1016/j.jpeds.2016.04.035.
30. Nulty D. Is it ethical for a medical practice to dismiss a family based on their decision not to have their child immunized? *JONAS Healthc Law Ethics Regul*. 2011;13(4):122–24. doi:10.1097/NHL.0b013e31823a61e5.
31. McClure CC, Cataldi JR, O’Leary ST. Vaccine hesitancy: where we are and where we are going. *Clin Ther*. 2017;39(8):1550–62. doi:10.1016/j.clinthera.2017.07.003.
32. Diekema DS. American academy of pediatrics committee on B. Responding to parental refusals of immunization of children. *Pediatrics*. 2005;115(5):1428–31. doi:10.1542/peds.2005-0316.
33. Edwards KM, Hackell JM. Countering vaccine hesitancy. *Pediatrics*. 2016;138(3):e20162146–e20162146. doi:10.1542/peds.2016-2146.