

“I Have to Write a Statement of Moral Conviction. Can Anyone Help?”: Parents’ Strategies for Managing Compulsory Vaccination Laws

Sociological Perspectives

2018, Vol. 61(2) 222–239

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DOI: 10.1177/0731121418755113

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Abstract

Laws requiring evidence of vaccination before children can enter schools or child care have been key to public health. However, as parents increasingly reject vaccines for their children, they rely on legal exemptions that allow children to access these settings without vaccination. Using qualitative data from interviews, ethnographic observations, and analyses of online forums, this article traces parents’ understandings of legal regulation and their strategies for navigating vaccine laws. Specifically, it shows how parents resent the lack of information about vaccine exemptions available, how they laboriously manage information about their children’s care to protect access to exemptions, and how they strategize how to use exemptions in ways they see as in their children’s best interests, but not necessarily as the laws were intended. It then shows how these efforts represent a way to challenge state power, which parents see as limiting individual freedoms. It concludes by considering the meanings for communities.

Keywords

children and youth, family, law, medical sociology, altruism, morality, vaccination and social solidarity

Introduction

I’m planning on sending my son to nursery school this fall (in PA). Since he isn’t vaccinated, I’m going to need to make a statement based on moral/ethical convictions. Instead of reinventing the wheel, I’m wondering if anyone has a great sentence or two that will make my statement clear and fulfill their requirements. Thanks!

This is but one post in a prolific online forum that exchanges questions and advice on a range of holistic mothering practices, including rejection of vaccines. Every state in the United States requires parents to provide evidence of vaccination to enroll children in school or child care settings. All states allow parents to opt out if their children have medical reasons. In all but three states (Mississippi, West Virginia, and as of 2016, California), parents can exercise an exemption

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for religious beliefs that would be violated by vaccination. This exemption is intended for parents who hold a sincere religious belief to the extent that if the state required vaccination, their constitutional right to religious expression would be infringed upon. This exemption requires faith belief beyond personal preference, but does not require membership in any particular religion (College of Physicians of Philadelphia 2017). Parents in 18 states may use an exemption based on personal or philosophically held belief in opposition to vaccination that is not necessarily linked to organized religion or spiritual belief.¹

The existence of these exemptions from requirements highlights the complex balance between state compulsion in the name of public health and respect for parental and familial autonomy and individuality. On the one hand, families hold a core role in upholding the goals of society, and serve as a location where production and redistribution of resources are carried out (Hartmann 1981). Although the boundaries and definitions of families are contested, the assumption that families are responsible for upholding social norms and goals are clear. This can be seen, for example, in the enactment of laws, policies, and regulations that intervene in family life through mandates for school attendance, intervention in child maltreatment, or assignment of child custody. All of these state powers illustrate the public place of families and the expectation that the state can intervene when families are perceived to not be functioning in ways that support social norms or goals (Donzelot 1979; Reich 2005). The existence of requirements, particularly around children's health and socialization, underscore a social contract between those who benefit from public resources and those who govern over them.

On the other hand, Americans have demanded parental autonomy and familial privacy to set their own priorities and exercise them within their own beliefs and goals, underscoring a vision of the family as a private refuge (Lasch 1995). These familial rights—the companion to familial responsibilities—demand freedom of religious expression, family norms, cultural custom, and even familial definition (Minow 1991). At core, these claims promote a view of family as autonomous, self-reliant, and entitled to freedom from state intervention. Claims for broader entitlement to vaccine exemptions—or insistence that vaccines should be entirely voluntary—emerge from these claims. Exemptions to those requirements then point to the complex process of balancing individual needs, values, and beliefs against collective obligations and benefits.

For parents who do not want to vaccinate their children, yet want to maintain access to social settings that require documentation of vaccination, like schools, summer camps, or child care settings, these exemptions provide a path from which their children can access resources without having to contribute to immunological protection vaccine mandates aim to create. More specifically, vaccine mandates expect that all children who can be safely vaccinated should be. For those children who have significant medical issues, which make them poor candidates for vaccines, the immunity created by other children around them make it possible for them to safely attend school, for example, without significant risk of infection. The immunity created through others' vaccine status provides a proverbial buffer between them and infectious disease, known as herd immunity (or community immunity). By maintaining a community level immunity rate, wherein 80 to 95 percent (depending on the disease) receive a vaccine, virtually all community members are protected from infection. Because 100 percent protection is impossible—because some kids are poor candidates for medical reasons, some will receive a vaccine that does not work for them, others are too young—herd immunity is created when those who can be vaccinated and generate immunity do so, which helps protect the most vulnerable who cannot. Achieving herd immunity is the goal of public health laws that require vaccines for school attendance. Those who benefit from others' use of vaccination, which creates herd immunity, without contributing to it themselves are referenced in the public health literature as free riders. In short, they benefit from community immunity without contributing to it, even though they were capable of doing so (Salmon and Omer 2006). At core, vaccines raise larger questions about how and whether individuals sacrifice or protect personal freedoms for communal solidarity and inclusion

that rest at the very heart of the social contract (Durkheim 1997; Simmel 1972). Vaccine resistance as it is framed as individual “choice” also raises important questions about gender, class, and social responsibility (Reich 2016).

This article specifically examines how parents who opt out of vaccines for their own children understand mandates for and exemptions to vaccines in law, craft claims to use exemptions, and articulate their perception of the state as curtailing their individual freedoms in efforts to promote public health. Examining parental strategies aimed at navigating governmental policies demonstrates how individuals perceive the state as an assortment of services, protections, resources, and mandates that can be sampled and selected individually, rather than a unified structure that encodes for a larger social contract of shared communal benefits and obligations.

Parenting and the State

Families are regulated by the state in complex ways. This includes state definitions of who can be legally recognized as a family, what rights we have in relationship to family members, and what obligations are assigned because of recognized familial relationships (Minow 1991). Families benefit from a network of state benefits and policies, ranging from tax credits for dependents to public support for education, child care, welfare, health care, disability services, or food programs. Arguably, care for those in need illustrates another manifestation of the social contract (Fineman 2000). These frameworks and resources shape the experience of parenting and structure options parents have available, which in turn inform parental strategies.

Perceptions of state regulation are complex. In many ways, “law generally sits on the distant horizon of our lives, remote and often irrelevant to the matters before us” (Ewick and Silbey 1998, p. 15). Yet, at other times, individuals come to have heightened awareness of the significance of law to structure their lives. At those times, “relationships, privileges, and obligations are explicitly redefined within ‘legal’ constructs and categories” (Ewick and Silbey 1998, p. 16). Parenting provides opportunities for law to move from foreground to background and forward again, as children’s lives and institutions are regulated.

A significant number of state regulations aim specifically to protect children, including requirements for helmets, seatbelts, car seats, school attendance, or medical care. Although arguably children are no more valuable than adults, the willingness to craft legislation and regulation for them illustrates public perceptions that their needs are unique, the risks they face are different than those facing adults, and their ability to manage their own safety is limited (Zelizer 1985). Sanctions may result when these regulations are violated or ignored, further illustrating how the state continues to regularly structure parental choice.

Although legal regulations are often developed based on evidence and with the aim to protect individuals and to distribute resources, research demonstrates that individuals nonetheless seek out strategies to accomplish their own goals, even sometimes citing the importance of resistance as necessary to function. For example, public employees cite bureaucratic regulation as a barrier to accomplishing agency goals (Jacobs 1990; Lipsky 1980), while those receiving public assistance often cite their need to break rules as necessary to their survival (Edin and Lein 1997; Gilliom 2001). Similarly, research on parents with children with special needs often voice frustration with having to “jump through hoops” (Doig, McLennan, and Urchuk 2009) or to engage experts to qualify for publicly funded services, even as medical models may advantage middle-class and affluent parents most (Ong-Dean 2005).

A broad literature on parenting shows that parents frequently and willingly circumvent many kinds of legal requirements, even those aimed at protecting their children. For example, studies show that parents help children gain access to age-restricted social media sites, circumventing laws that aim to protect children’s identity and privacy (boyd et al. 2011). This is particularly true of middle-class and affluent parents who feel more entitled to advocate for their own children,

and question teachers and school authorities (Addi-Raccah and Arviv-Elyashiv 2008; Fine 1993; Hassrick and Schneider 2009; Lareau and Muñoz 2012) or health care providers (Gengler 2014; Reich 2016).

Of course, the ability to ignore the law speaks to a certain amount of privilege that allows freedom to move outside of regulation. Legal scholar Austin Sarat suggests that the legal consciousness of the welfare poor is substantially different from other groups because, for most, the law is less immediate and less visible in daily interaction. He suggests that for the poor,

Law is immediate and powerful because being on welfare means having a significant part of one's life organized by a regime of legal rules invoked by officials to claim jurisdiction over choices and decisions which those not on welfare would regard as personal and private. (Sarat 1990)

As families rely on state resources to exercise choice, as many low-income families do, the ways they are regulated become more visible and often more prescriptive (Kurz 1998; Roberts 1999).

Studying vaccine refusal and parents' efforts to navigate the state provide an opportunity to understand other manifestations of law in daily life. I conceptualize the state here as a political institution that is accepted as legitimate in its ability to maintain rules and laws, enact and support bureaucracy, and dispense resources. The state is multifaceted, at times coercive, punitive, or supportive (Haney 2000; Morgen 1990). It is also differentially experienced based on race, gender, and class. Parents who opt out are most likely to be white, college educated, married, and have a higher family income, making this a phenomenon of middle-class and affluent parents. As these parents define their goals, they express an entitlement to liberty from state intervention, while insisting on access to benefits that the state provides. This kind of claim would likely be difficult for other families with less privilege. Practices of parenting are powerful places in which privilege is transmitted. As David Cheal (1991) suggests, "Family members define their projects with reference to personal desires, rather than public goals, and they are free to implement them to the limits of their resources."

The Logic of Vaccine Requirements

Vaccine policy promotes a uniform health care intervention—administered at the same age in similar doses—for everyone. In doing so, distribution is relatively simple and inexpensive. Individuals gain immunity to protect themselves, as well as protect others in the community. The ability of the state to compel participation and individuals' relative right to refuse have been controversial for more than a century.

The first laws requiring vaccine use were enacted to prevent smallpox. In 1905, in the case of *Jacobson v MA*, the U.S. Supreme Court clarified that the state had legitimate police powers to require immunization.

The liberty secured by the Constitution of the United States does not import an absolute right in each person to be at all times, and in all circumstances, wholly freed from restraint, nor is it an element in such liberty that one person, or a minority of persons residing in any community and enjoying the benefits of its local government, should have power to dominate the majority when supported in their action by the authority of the State. It is within the police power of a State to enact a compulsory vaccination law, and it is for the legislature, and not for the courts, to determine in the first instance whether vaccination is or is not the best mode for the prevention of smallpox and the protection of the public health. (U.S. Supreme Court 1905)

Despite the constitutionality of these laws, enforcement waned, as did occurrence of smallpox. Antivaccination sentiment strengthened, along with distrust of the expanding role of the state. In the early twentieth century, partly in response to the *Jacobson* decision, states began to

repeal mandatory vaccine laws or to pass ballot initiatives to limit state powers around vaccines.

In the post-polio era, with President Lyndon B. Johnson's War on Poverty as a backdrop, the federal government encouraged states to pass vaccine laws to increase public access, which was seen as a social justice issue. New federal funds allowed states to pay for vaccines, and states were encouraged to again require vaccines for school attendance. These laws accompanied other public investments in American health care, including the creation of Medicare and Medicaid in 1965. The programs of the Great Society represented a notable expansion of state power, not seen since the New Deal. As the country prioritized helping the poor, it was clear that poor children were less than half as likely to be vaccinated as wealthier children who were also three times as likely to see a private physician (Colgrove 2006). Unlike other health inequities, large numbers of unvaccinated children could spread infectious disease. This created perceptions of risks to the broader community and motivated some who were unsympathetic to the challenges of poverty to nonetheless support investment in vaccines.

In the early to mid-1960s, only about half the states had vaccination laws for school attendance; those that existed dated back to smallpox and were seldom enforced. But in 1967, in concert with its national measles eradication campaign, the U.S. Centers for Disease Control and Prevention (CDC) launched a push to make the laws more extensive and uniform. From 1968 to 1974, the number of states with laws requiring all or most recommended vaccinations prior to school entry increased from 25 to 40. States without laws gradually fell in line with the national trend, and by 1981, all 50 states had such a law.

There was early evidence these laws made a difference. In one notable example, a measles outbreak infected children in Texarkana, a city that straddles both Texas and Arkansas. Texas had no vaccine requirements for measles, and Arkansas did. Children in Texas experienced measles at 12 times the rate of neighboring kids in Arkansas. The relatively rapid adoption of these laws was not particularly controversial; polls from this time period suggest that many Americans—as many as 25 percent—did not know their state had a compulsory vaccine law; most also expressed that they planned to have their children vaccinated anyway (Colgrove 2006). In addition, Christian Scientists successfully lobbied for religious exemptions to be written into laws requiring vaccines in all but two states, making West Virginia and Mississippi the only states without a religious exemption.

The religious exemptions passed into law were imagined to affect few families but were written broadly to be inclusive of other faith beliefs as well. How these exemptions should be interpreted proved complicated. Legal questions through this era revolved around whether parents must belong to an organized religion, whether they could be expected to demonstrate the sincerity of their beliefs, and whether exempting some children unreasonably increased risks to other children. A series of lawsuits helped carve the multiple meanings of religious exemption, most of which led to liberal interpretations of the laws to allow broad use, which over time came to cover claims by Orthodox Jews and even those committed to secular spirituality of natural living (Colgrove 2006; Reiss 2014).

National Recommendations for Vaccines

The Advisory Committee on Immunization Practice (ACIP) has been charged since 1964 with evaluating all science relating to vaccines, assessing safety and efficacy, and recommending the timing and spacing of vaccines. These recommendations are then often also endorsed by organizations such as the American Academy of Pediatrics (AAP). States then draw on these recommendations when writing their own laws, including which vaccines should be required for school attendance, whether those regulations apply to preschools, private schools, or other child care settings, and what options exist for opting out. As a result, there is variation across states, with

different legal configurations—which may contain more or less cumbersome requirements for documentation. Yet most states provide some deference to parental autonomy and allow parents to opt out for documented reasons.

In all states, parents may opt out of vaccination for their children for medical reasons. However, using this requirement can be complicated since it requires documentation from a health care provider that a child is vulnerable to an adverse reaction from vaccination because of an illness, disability, or predisposition. In all but three states, parents can exercise an exemption for religious beliefs that oppose vaccination. Most states require a statement to the school or child care setting—both public and private—describing the religiously held beliefs. Research suggests that use of religious exemption does not match data on religious belief and has increasingly become a tool by which nonreligious parents opt out of vaccination requirements (Reiss 2014). Parents in about 18 states may use an exemption based on personal or philosophically held beliefs. Claiming an exemption ranges from a signature on a form, to a signed affidavit or essay, to signatures from pediatricians verifying that parents have been educated about risks of opting out. In some states, this is required only at the time of enrollment. In other states, it must be updated annually. The more complicated the process of claiming an exemption, the less often it is used (Blank, Caplan, and Constable 2013). Nationally, nonmedical exemptions are seldom used, with an estimated two percent of children, or 80,000 kindergarteners, receiving such exemptions from at least one vaccine each year (Blank et al. 2013; Samuel 2017).

Because vaccine refusal is relatively uncommon, parents share information with other parents in their community and from around the country through online forums and social media, illustrating some of the ways vaccine hesitancy and resistance cluster across networks (Ernst and Jacobs 2012; Lieu et al. 2015; May and Silverman 2003; Salathé and Bonhoeffer 2008). These networks—both in-person and online—increase parents' perceptions that vaccine refusal is normative and provide ways of understanding health promotion that may not mirror knowledge promoted by public health or medical practitioners. Because parents who refuse vaccines tend to cluster in social networks, there are regions with as high as 50 percent utilization of exemptions. As parents share information about doctors, parenting, nutrition, and vaccines, they also devise complex strategies to circumvent vaccine requirements while still ensuring their children can maintain access to these formal educational and enrichment activities. Information they share shapes their perception of legal regulation. Yet regulations can vary across state lines, as they do for vaccine exemptions. As a result, parents who share information about vaccines and related laws sometimes embrace strategies geared toward parents in other states to meet legal and regulatory frameworks that do not apply to them.

Method

Qualitative data for this article come from in-depth interviews and ethnographic observations with parents, pediatricians, vaccine researchers, and attorneys who represent claims in the federal Vaccine Injury Compensation Program. Interviews were conducted with 34 parents (29 mothers and five fathers) who challenge expert recommendations on vaccines for their children, either by opting out completely or by providing consent to some vaccines on a schedule of their own devising. Although fathers participated, it is clear that health care decisions tend to be maternal terrain, consistent with other research showing that women are responsible for navigating meanings of health, necessity, risk, and state intervention for their children (Salganicoff, Ranji, and Wyn 2005). As such, I use the terms *parent* and *mother* somewhat interchangeably. Participants for interviews were recruited by others familiar with the study, by email, or through listservs.

Despite the tendency in medical literature to treat parental rejection of vaccines as categorical, this is not a group with clearly delineated lines of membership. Parents constantly reassess whether vaccines are necessary for their children, based on shifting perceptions of need and risk.

They also consider each child in the family differently, at different ages. Thus, I include those who opt out entirely (more than half of interviewees have at least one child who has not received any vaccines) and parents who consent to vaccines on a schedule other than that recommended by federal advisory bodies, state law, and physician organizations. Parents may have consented to vaccinate their first child but not later children or might have deliberately chosen vaccines that protect against a risk they perceive as serious while rejecting others. There were no consistent patterns between those who rejected all vaccines and those who consented to some. They engage in the same processes of assessing risk and benefit from an individualized perspective and sometimes move between categories, based on experience, research, or perceived needs of each child. Thus, I do not consistently reference children's total vaccine status.

Parents interviewed reside in Colorado, which has among the lowest rates of vaccination in the United States and remains one of the states with the highest rates of parents exercising exemptions to vaccine requirements for school attendance by declaring a religious, personal, or philosophical objection to vaccines (Draper 2015). All but one parent is white. All but one identify as heterosexual; 29 are married and five are divorced or separated. Ten parents have bachelor degrees, 11 have graduate degrees, eight have some college, and five are high school educated. These parents have varying degrees of religiosity, but only one—a Christian Scientist—cited religion as the reason to reject vaccines. Ten parents stay home full-time, 11 work full-time for wages, 13 work part-time, help run family-owned businesses, or are professionals with limited work hours and great autonomy, including massage therapist, yoga instructor, birth coach, and writer. Ten parents have one child, 12 have two children, six have three, five have four, and one has eight. Parents are between 26 and 60 years old. All but two parents have at least one minor child at home. In interviews, I captured parents' narratives of their vaccine choices, not necessarily as they are making them, but as they have made sense of them.

I interviewed nine pediatricians to understand their experiences with parents in their clinical practices. I specifically sought out pediatricians who provide primary care (and thus, routine vaccinations) or who conduct research on vaccine policy. Some are known by parents to be "vaccine flexible." Practices vary from those who serve low-income publicly insured children while others concentrate on higher income families. All but one provider accepts insurance. In addition, I draw on interviews with others who shape vaccine policy and practice. This includes 11 attorneys who work in the National Vaccine Injury Compensation Program representing parents or working as special masters adjudicating cases, which provided insight into how actual injuries appear, what patterns exist, and how the compensation system supports families. This system nationally has fewer than 100 attorneys and only eight special masters who hear every case.

Interviews lasted between one and four hours and were recorded and transcribed verbatim. Transcripts were initially coded and analyzed thematically, and then themes were developed into theoretical frames to build what Kathy Charmaz (2002) calls constructivist grounded theory where data are collected and analyzed "to learn participants' implicit meanings of their experiences to build a conceptual analysis of them." Field notes from ethnographic observations and online discussions relating to these vaccines were also coded and analyzed thematically.

Data also come from ethnographic observations of spaces where vaccines are discussed. These include three annual meetings of two national organizations that oppose vaccine mandates or support natural living (which often includes avoiding vaccination). I attended sessions, had lunch with parents, observed casual conversations, and spoke with organizers, presenters, and attendees. Over several years, I also observed community educational events in different Colorado cities held by pediatricians for parents about vaccines, at educational events for physicians offered by vaccine researchers or other physicians, and a meeting of the Institute of Medicine where experts discussed vaccine safety.

In addition, I analyzed online discussions between parents around the country and blogs written for parents by parents about vaccines. I did not participate in online discussion forums but

remained a passive observer, sometimes searching archives for past discussions specifically about vaccination. Given how small these communities are, I do not name the forums I observed. Some were on mainstream social media sites such as Facebook, and others were in more targeted forums hosted by organizations. In each, users could post comments or questions and receive feedback and advice from others. Based on comments or profile information, these forums appear to be used predominantly by women, which is consistent with research that suggests mothers are more likely to use social media to engage networks for parenting advice, information sharing, or social support than are fathers (Duggan et al. 2015). In data collection, I also targeted social network sites more likely to be frequented by mothers exchanging information and advice. Admittedly, I can say little about participants' offline lives. Generally, mothers who write blogs or participate in parenting forum discussions tend to be wealthier, more likely to have a college education, more likely to be white, and more likely to have a higher annual average household income than mothers who do not (Laird 2012; Morris 2014). When I use excerpts from online posts, I reproduce them as written without correction. These discussions provide valuable insight into how parents talk to other parents about their concerns, strategies, and goals. They may not measure what parents actually do but what characterizes their values and priorities as they present themselves to each other.

Findings

This article traces parents' perceptions of the state and strategies for navigating legal requirements for vaccination for school attendance. First, I show how parents express resentment for what they perceive to be a lack of information about the availability of legal exemptions from vaccine requirements for school attendance. Even in states that permit exemptions, parents feel hard-pressed to get information about their availability, which they suggest provides a view of the state as limiting their ability to claim a right. Second, parents—even those who have permitted some vaccinations—describe efforts to laboriously manage information about their children's care for fear of jeopardizing claims to an exemption. Third, parents strategize how to use vaccine exemptions in ways they see as in their children's best interests but not necessarily as they were intended. Focusing primarily on religious exemptions, which are more limited than personal or philosophical belief exemptions and available in all but three states, I show how parents craft claims of religiousness to justify opting out of vaccines, even as they lack religious beliefs that would be violated by using vaccines. Finally, I show how parents view state efforts to enforce vaccination as illustrative of a view of the state as limiting individual freedoms. I conclude by considering what this means for communities.

Claiming a Right to Know

As mentioned, all states have some legal mechanism for opting out of vaccinations while maintaining access to schools or child care settings. Yet this information is not readily available or promoted. This is not particularly surprising, considering the strong preference that states have in limiting the size of their unvaccinated population. Lack of information about exemptions is a source of frustration for many parents who say the information can be hard to come by, even in states that permit a wide range of exemptions. One mother describes online how this lack of information affects parents:

I work at my son's [Waldorf] school, and we are legally not allowed to discuss the exemption forms if people don't ask for them. . . . I still remember the panic I felt when I got the letter (before I started working there) stating that he would not be admitted if his vaccines weren't up to date. I called, saying, "Isn't there an exemption?" And of course there is, but the thing that pisses me off is that we're not allowed to *say it!* I mean, we can say it after they ask, but not technically before.

Another mother describes in an interview her frustration with hearing how much parents who want to exercise a personal belief exemption are discouraged from doing so by school personnel who communicate vaccine mandates but not options for exemption. She insists,

The only “mandatory” requirement for schooling is—is to fill out the no [vaccine] schedule. But they never disseminate that information unless they’re pressed. . . . And I kept hearing this from other parents. Parents would say, “They’re telling me my child can’t go to school.”

In an effort to advocate for other families, this mother, whose own children are now young adults who remain unvaccinated, sometimes intervenes with schools.

And I’d call them up and I’d act ignorant. I’d act like I didn’t know anything about it. And, sure enough, they’d say, “Oh, yeah. You have to have vaccines.” And I’d say, “Well, no, you don’t.” And so I think it’s really essential that parents become really informed and educated. No matter what decision they make, that’s their choice, but choice and our rights to do what we feel is best for our children is essential.

As parents describe their frustration with the lack of information offered about the availability of exemptions, they articulate a view of the state as undermining their ability to understand the full array of options and, thus, foreclosing their exercise of individual liberty. This in turn fuels an insistence that interactions with state actors must be carefully managed, with parents individually responsible for finding accurate information. As one website for parents who oppose vaccines advises,

In the past, some non-profit organizations have researched statutes for each state and have posted exemption rules on their web sites. However, today parents need to check the up-to-date rules themselves before submitting any exemption forms, letters, or notices. Don’t assume that any non-profit has the staff to track all fifty states and provide all of the information needed.

As parents offer advice to each other, they insist that parents have an individual responsibility to advocate for their own family. To do so effectively, parents must conduct research, understand legal requirements, and strategize their response. This ethos places parents and their goals as central and state policies as ill-informed or misguided. Parents encourage each other to claim this authority. Making decisions within state regulations and, when necessary, against state actors provides a means to exercise liberty and claim family autonomy. It also comes to define good parents as those who advocate for their children.

Strategizing Interactions with the State

Parents—both those who have permitted some and those who have rejected all vaccines—laboriously manage information about their children’s care for fear of jeopardizing claims to an exemption. How to effectively do so is an ongoing discussion with parents seeking advice, reflections of others’ experiences, and explanations of requirements. As one mother explains in an interview, “I belong to a large no-vax group, and this question comes up probably once a week.”

Some parents would like their children to receive some vaccines but may choose not to disclose this to school personnel in fear that doing so might jeopardize their right to reject other vaccines while still claiming a legal exemption. Rules for exemptions vary by state. In many states, parents who consent to some vaccines may no longer claim a religious or philosophical exemption, since the state assumes that a philosophical or spiritual belief would apply to all vaccines, not some. This creates a challenge for parents who would like to adopt a cafeteria-style approach to immunization, choosing the ones that feel most compelling and rejecting the others.

One mother's explanation of how she registered her son for kindergarten illustrates this. At that time, her son had had one vaccine, not the full required series. Yet she chose not to disclose this to school personnel. She explains her strategy:

According to them, he's had none . . . [be]cause in this state, you know, we have personal exemption, but the way it was explained to me was that you can't just list one vaccine, because if they've seen that he's had one vaccine [you cannot claim an exemption].

In support of this strategy, another mother in an interview describes how she manages information carefully. She explains,

Basically, I have an immunization card that I keep in my records at home, and my school has a different immunization record. Because if you have one vaccine, then they can make the case that, "Oh, you don't really object to vaccines on principle, so you need to do it the way we tell you to do it." And they take the choice away. So as far as they know, he hasn't had any.

For more than 20 years, Immunization Information Systems (IIS), also known as "Immunization Registries," have been used in every state in the country. These confidential databases consolidate immunization records of patients who may receive care from multiple providers, identify low immunization rates geographically, and monitor public health. They may also be useful for parents needing an easy way to document children's vaccine records, since often, schools or health care providers can centrally access them. Use is supported with federal funds and incentivized by both the Medicare and Medicaid programs (Martin et al. 2015). Their usage, rules of consent, and governance vary from state to state, and even within particular localities.

Many parents view these registries with distrust. For example, one mother explains in an interview her resentment of state intervention in families' lives:

There really is a general attitude to move towards womb to tomb tracking, the national ID tracking and immunization tracking, where all of your data—all of your data about any immunizations—is tracked in a federal system from birth to death, and you know our state legislators were really busy trying to change things.

More specifically, many parents view vaccine registries and their efforts to consolidate information as potentially jeopardizing their ability to maintain exemptions, even as they may seek individual vaccines. For example, one mother explains in an interview of her efforts to get only the vaccine against tetanus for her son while avoiding the risk of being entered in the statewide vaccine registry.

Tetanus was the first thing that I wanted to make sure he had because that's what he's most likely at a young age to pick up. But I make sure—the way I did it is I went to the health department . . . as opposed to a family doc where they have to keep records and submit it to the state. If you go to the health department, they give you the card yourself.

Without knowing the accuracy of perceptions of who uses state registries and which places verify kids' identities, these parents' stories illustrate their efforts to strategize access to vaccines they want while maintaining claims to exemptions. Throughout, they express a commitment to exercising their own preferences for their children's health care. State systems that centralize data and track information underscore a view of the state as invasive and potentially dangerous.

Parents view the state as monolithic and oppressive when discussing its role in enforcing public health. Yet they often misunderstand the multifaceted policies and nuances of enforcement, particularly as they vary across state lines. As mentioned, parents in some states who

consent to some vaccines may no longer claim a religious or philosophical exemption, since the state assumes that belief would apply to all vaccines, not some. In fact, Colorado—where I interviewed parents—does allow objection to individual vaccines without jeopardizing claims to exemptions. As one public health official explained to me, Colorado agencies would prefer to have children partially vaccinated rather than completely unvaccinated if parents only feel concern about some vaccines. Yet as parents offer advice online and across state lines, they share information that may not directly apply to them, as well as a perception that the state works against parents similarly everywhere. As a result, they understand that disclosing one's actual vaccine decisions to state actors may present risks long-term. The mother discussed above who is working hard to separate real and fake vaccine records in a state that makes no distinction between children who have had no vaccines and some vaccines illustrates how this manifests. By keeping "real" vaccine records at home while maintaining control over what information is submitted to the school or state-monitored vaccine registry, parents like her see themselves as proactive in protecting their freedom to vaccine choice. They then strategize around their fear of having it taken away, even if that is unlikely in their own state.

Outside of formal documentation, parents suggest to each other that they manage information carefully. As one mother advises online, "Whatever you do, less is best, be nice, not defensive. Provide the minimum letter, reiterate the statute and be vague if necessary. Don't discuss your choices with other school families unless you trust them."

Similarly, one blogger advises parents on "how to get a religious exemption like a boss." As she suggests ways to demand authority, she insists,

If your state gives you the right to a religious exemption, go get it. Know your statutes, drop your verses, print out your letter for anyone you may be speaking with and include a reference page. You're never too old for homework and we're saving rights lives here! Keep it short, sweet, and to the point. (Heimer 2016).

In these ways, parents articulate a view of state law as requiring active management, informational and interactional strategies, and an oppositional disposition.

Crafting Claims to Exemptions

Parents frequently describe the process of figuring out how to exercise an exemption as stressful, particularly in states that are more restrictive and only offer religious exemptions, rather than the broader personal or philosophical belief exemption. Some see these as laborious processes, often requiring them to challenge school experts or even seek legal advice from professionals. In crafting claims to exemptions based on religion, parents often find themselves challenged by the necessity of claiming a religious belief they do not actually hold. As a result, most advice offered identifies the importance of limiting detail about their claim, lest they undermine their own claims. One mother advises online, "Most times posters want to add an explanation to their religious beliefs and it is recommended not to because the more information you offer the more they can question and ask specifics for your religion."

There are few ways schools can legally ask for evidence of religious belief. Yet parents see interactions with these gatekeepers as requiring specific strategies. As such, this mother advises parents to be clear on what rights for exemptions they are entitled to based on state law:

It is important to understand what state you live in . . . Some school workers may try to bully and get a person to state the exact religion. No state or school board can tell you what your religious beliefs are. They can be personal, different and doesn't have to be understandable. Also from what I understand that if a school accepts any funds from the state (and there are some private schools that do so), whether for lunch, programs, etc. they must follow the laws of their state.

These efforts to manage vaccine information to best strategize access to exemptions is important to women. One mother's effort to seek advice online illustrates this. As she explains, she consented to vaccinate her daughter against measles, mumps, and rubella, given in one injection as the MMR. As background, this shot is recommended in two doses: one at age 12 to 15 months and then a second between the ages of four and six years. These multishot series are given to increase the probability of seroconversion, that is, the production of immunity against a specific bacteria or virus, and to create long-term immunity. With each booster, the overall odds of becoming immune against the vaccine-preventable microbe go up. For example, for measles, 95 percent of children who receive the vaccine at 12 months (and 98 percent who are given it at 15 months) will become immune, but practically 100 percent develop serological evidence of immunity after a second dose. Of course, a small portion of children will lose immunity over several years, requiring additional boosters, and some might never gain it, but multishot series increase the odds of immunity (AAP 2009).

In an effort to show her daughter had gained immunity from her first MMR vaccination and should, therefore, not be required to get a second shot, this mother sought out testing to check levels of antibodies in her daughter's blood, which suggests immunity. This test, known as checking titers, showed that her daughter had developed immunity against measles. However, it also indicated she lacked immunity to mumps and rubella, the other two components of the MMR. Her willingness to give her daughter one MMR shot, she feared, may have jeopardized her claim to a religious exemption. She confesses to the online group, "I don't know if I can even use the religious exemption at this point since I've explained all this to the school nurse and she relayed it to the district doctor."

Many online community members offer her sympathy and advice. One mother explains that finding a pattern across the vaccines she rejects can be a strategy for claiming an objection. She notes,

Partial vax is a problem where there is no philos. exemp. You'll have to do your research on each vaccine you choose and decline and find the ingredients. If all the ones you decline have animal products or aborted fetal tissue, you can probably go with an "ethical conviction against injecting animal or aborted human tissue into your body"—like a vegan, but if you do not eat vegan, that argument prob. won't work. Or if the vaccines you decline all have a known cancer ingredient, maybe that might work but prob most vaccines have them. Try to find a common denominator.

Facing challenges to claims of religious exemption, parents often encourage each other to find new ways to communicate their objections. At times, vaccine ingredients were cited as one source of exemption logic. Because some early vaccines were developed using fetal tissue to grow the initial virus for isolation, some fetal DNA from those initial cell lines arguably remains in the vaccine. Drawing on this, one mother advises,

If the MMR mumps uses aborted fetuses or something, you might be able to say it's against your religion. I don't remember which ones do or not, but even being Catholic could allow you to slide out of that one.

Another mother at a luncheon I attended encouraged others who may have partially vaccinated their children to claim a religious exemption by insisting they have rethought their faith after starting vaccines. She insists, "You can always find Jesus."

Each of these discussions and strategies illustrate ways parents who want to resist vaccines but still gain entry to schools and child care settings craft their claims within the law. In doing so, they illustrate how law can be mobilized for individual benefit and used in ways that protect the individual, even at the cost of the collective. Rather than seeing vaccine requirements as a

manifestation of a social contract, even between those with different social, religious, or political orientations, parents discuss them as a limitation on individual freedom. State power is seen as oppressive because it is applied uniformly. As such, parents insist they must strategize for their personal goals for their children against the state, which advocates for collective well-being at some personal cost.

Challenging State Power

Parents frequently complain that vaccine exemptions are increasingly hard to get. This may reflect the handful of new regulations that went into effect in 2016 in response to a measles outbreak at Disneyland in 2014 that led to tightened enforcement of exemptions and removed personal belief exemptions from law in California and Vermont (Blank et al. 2013). New laws passed in 2015 in other states require schools to make public their rate of children who are unvaccinated. This has likely increased concern among parents who trust vaccines and may have increased pressure on those who opt out. Even where laws did not change, parents complain exemptions are harder to get and perceive school personnel are more likely to enforce the process of claiming an exemption in ways they had not previously. Whether these are real barriers or perceived ones, parents are concerned that their preferences will be hard to realize. Taking this on, one blogger addresses the challenges of exercising a religious exemption:

Okay guys, let's talk. Peeps be hittin' up my inbox because they can't get religious exemptions. Apparently, the religious exemptions we're entitled to by law are hard to come by. Paperwork, interrogations interviews, the third-degree . . . it's quite the process. Some lucky parents are getting called to the rug to defend their religious beliefs in front of a panel of people who have probably never even heard of Jesus and whose sole purpose in life is to trip them up with tricky questions designed by vaccine enthusiasts to rob people of their rights. Gone are the days where you could just Google, "vaccine religious exemption letter" and change the greeting at the top. Getting your school to serve a lunch that's fit for human consumption is easier than getting a vaccine exemption. (Heimer 2016)

From the perception that schools are interfering with parents' right to claim an exemption, parents suggest adopting an adversarial position in communication with school personnel. At times, parents identify their limited ability to manage claims of exemptions themselves and instead advocate hiring attorneys or professional consultants who specialize in vaccine exemptions. Even as they suggest it, they simultaneously communicate their contempt for having to do so. One mother explains in an online discussion,

The worry about getting into schools, having to be careful about how we formulate our religious exemption letter, the constant politics regarding consent and schools. Its awful! I feel like I'm walking on eggshells sometimes . . . I just hope that people can humanize everyone's personal choice and leave it alone.

In these ways, parents position themselves as victims over their shared sense of curtailed freedom.

By seeing themselves as victims, parents (who notably have high levels of social capital) highlight the external limitations the state places on their parental choices, rather than viewing vaccine requirements as a community obligation that protects their own children but also asks them to protect others. As one mother explains in exasperation, "Oh my goodness—so outrageous. there should not even be a legal issue with vaccines. Either you want it or you don't. Shouldn't have to justify yourself." From this perspective, law represents the limitation of liberty. As parents who wish to opt out of vaccination for their children while maintaining access to

public resources complain about legal regulation, they communicate a view of the state as limiting their exercise of individual choice and freedom to make decisions without scrutiny, obligation, or approval. Choice to use public resources, they argue, can exist alongside the choice not to contribute to them. Each are voluntary and meaningful when free from compulsion.

A large body of research shows how low-income families live with heightened surveillance and state scrutiny (Flavin 2008; Gilliom 2001; Reich 2005). Vaccine refusal may represent one of the few times privileged parents face the social oversight usually reserved for poor families. For some, the experience of surveillance around vaccines represented larger trends to monitor families, particularly around questions of health. Illustrating this, one mother describes in an interview how she sees vaccine oversight as an expansion of state power disempowering individuals:

Well, we just continue to put more control in the hands of the government. It's the thought that the people aren't smart enough to take care of themselves, so we need the government to do it for us. And I guess I just believe a lot in individual responsibilities and rights. See, I know I'm responsible for my kids.

Admission to schools and child care settings are the most common but not the only way state-run public health systems exercise power. The state also holds the power to quarantine unvaccinated children—even those whose parents declare exemptions that allow their kids to attend school—when outbreaks of vaccine-preventable diseases occur. One mother experienced this government power firsthand.

When a measles outbreak was reported at the school where her unvaccinated children attend, county health officials placed them in quarantine, ordering them to stay inside the house and away from others. As is routine with outbreaks of vaccine-preventable illnesses, public health officials commonly quarantine children who are not vaccinated and then offer them prophylactic vaccines. Should they consent to the vaccine, they can return to school. If they do not, they will remain in quarantine.

This mother not only rejected the vaccines offered to her children but also chose to ignore the quarantine order. Instead, she brought her children to a field trip the following day; it did not go well. She recalls,

So I went to the field trip and there was two nurses that were mothers of the kids in the class and so they went and called Social Services—or not Social Services, they called the health department to send me home. And when they did, they tacked something on my door that said we're quarantined for a week.

With a public notice physically tacked on her family's front door, this mother felt she had to obey the quarantine. She continues to insist the measure was unnecessary and illogical. At moments like these, the law becomes visible in the families' lives and shapes a view of the state as oppressive, arbitrary, and untrustworthy.

One interviewee, a pediatrician who serves a high number of families who reject vaccines, explains that in his experience, vaccine refusal emerges from this distrust. He reflects,

I think there's a real distrust of the medical system and a real distrust of the government in general . . . I think that people don't feel like it's 100 percent looking out—looking out for their good, and if it is looking out for their good, it might not be looked out for their individual good, but for the sort of greater good and that doesn't always make sense to people.

In these ways—from limiting access to schools and child care settings parents have selected for their kids, to the possibility of quarantine—vaccine refusal elucidates the complex ways

state power plays out in the daily lives of these parents. Although distrust of the state may fuel vaccine refusal, it is clear that lack of public support for vaccine refusal fuels distrust of the state too. As parents perceive a lack of transparency about the availability of exemptions, lack of respect for parental decision-making, and popular culture narratives that malign parents who opt out, they reiterate a lack of trust in state-declared efforts to promote public health. Cast in this light, state intervention in vaccine choice, supervision of individual health, and public health monitoring through data systems like vaccine registries may facilitate a perception of the state as invasive to family privacy, disrespectful of individual preference, and challenging to a view parents hold of themselves as uniquely responsible for their children and best qualified to evaluate what they need.

Discussion

Parents aim to be advocates for their own children, devoting time and resources to educating themselves on vaccines and making decisions they believe are in their children's best interests. Unlike most other state-enforced health interventions that protect children, like nutritional standards in school lunches, baby food safety regulations, or prohibitions on lead paint in homes, vaccination is more visibly enforced by the state through individual-level bureaucratic machinations and mandates a certain level of surveillance into family life. Although low-income families are often subjected to state surveillance, this is an unfamiliar experience for those with high levels of education and resources. Privileged parents, it appears, would like to live comfortably in their privately held beliefs and among their personally set priorities, while also insisting their children are entitled to fully participate in educational institutions or organizations that offer children opportunities for social engagement. As one mother explains succinctly,

My child's vaccination status is no one's business other than mine and his father's . . . By state law, I do not have to vaccinate him. And that should not preclude me from ANYTHING. School, medical treatment, or otherwise. And I certainly do not believe that is grounds for CPS (child protective services) knocking on my door.

In viewing the state and its obligations as unreasonable invasion, both as limiting access to settings they choose or as potentially inviting intervention through investigation for maltreatment, parents communicate a view of the state that is seemingly contradictory. On the one hand, the state limits freedoms by requiring vaccination, and limiting information and access to exemptions promised in state law. On the other, the state funds and licenses schools and child care settings that may provide opportunities for individual development and social capital acquisition. Much like the lack of complaints for safety standards for food or environmental toxins, no parent voiced a desire to avoid tax credits or financial aid for college that may also come from the state.

Although the unwillingness to acknowledge these contradictions may seem counterintuitive, parents' ways of voicing their claims of liberty thread through both versions of the state. In each, parents highlight the role of personal choice and individual investment in their own children, even at times when that choice is limited or supplied by the state. What remains invisible, as parents promote a view of the state as providing consumption options, are the costs to other children whose parents are least able to execute their individual preferences, including a desire to access high quality health care.

Vaccines most succinctly suggest a social contract that requires each person to contribute to the collective to enjoy the benefits of community membership. Arguably, parents' desire for access to public resources without contributing to community health may represent a certain breach of social responsibility. Even the willingness for some parents to enjoy low risk of infectious disease because of others' immunity—to be free riders on other children's vaccine status—motivates

much of the negative media coverage and social disapproval that vaccine refusing parents experience. Yet the notion that there is in fact a collective social contract is not without contention. As one opponent of vaccines announced to a cheering audience of like-minded people at a national meeting of parents opposed to vaccine mandates, “I don’t remember signing a contract!”

Outside of the vaccine context, there are notably few places where our social contract is debated so regularly and explicitly. The vocabulary of a social contract is seldom referenced when discussing school funding, votes on bonds, traffic safety, public assistance, fracking, social security, or environmental policy. Even the significant public health programs that limit smoking in community spaces are more often framed as efforts to protect individual rights or health, rather than an expression of our communal investment in one another’s well-being. Yet proponents of vaccines consistently insist we have a social contract that vaccine refusers violate.

Parents should make choices they believe are best for their children, but when considering their options and opportunities, they must balance those goals with an obligation to invest in others’ children too, obligations that are arguably higher for those who have the best access to high quality food, health care, schools, housing, and resources. Yet allowing for individual beliefs and preferences, and dissenting ideas of what constitutes health are important too. Vaccines highlight the interplay between community risk and benefit, even as these same extensions of a social contract exist more broadly. As parents position themselves in relation to laws that require vaccines for school attendance, they deploy complex perceptions of the state and reveal their individual efforts to strategize around it.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: A University of Denver intramural faculty research grant supported a portion of this research.

Note

1. The number of states that allow personal belief exemptions is complicated to calculate. The following states clarify exemption in law: Arizona, Arkansas, California, Colorado, Idaho, Louisiana, Maine, Michigan, Minnesota, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Utah, Vermont, Washington, and Wisconsin. Missouri allows exemptions only to day care, preschool, and nursery school enrollment. Other scholars argue New Mexico’s law is flexible enough to apply even as personal belief exemptions are not stated in law. See <http://www.vaccinesafety.edu/cc-exem.htm> for a list of states.

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References

- Addi-Raccah, Audrey and Rinate Arviv-Elyashiv. 2008. “Parent Empowerment and Teacher Professionalism.” *Urban Education* 43:394–415.
- American Academy of Pediatrics. 2009. *Red Book: 2009 Report of the Committee on Infectious Diseases*. Elk Grove, IL: American Academy of Pediatrics.
- Blank, Nina R., Arthur L. Caplan, and Catherine Constable. 2013. “Exempting Schoolchildren from Immunizations: States with Few Barriers Had Highest Rates of Nonmedical Exemptions.” *Health Affairs* 32:1282–90.

- boyd, danah, Eszter Hargittai, Jason Schultz, and John Palfrey. 2011. "Why Parents Help Their Children Lie to Facebook About Age: Unintended Consequences of the 'Children's Online Privacy Protection Act.'" *First Monday* 16. <http://journals.uic.edu/ojs/index.php/fm/article/view/3850/3075>
- Charmaz, Kathy. 2002. "Qualitative Interviewing and Grounded Theory Analysis." Pp. 675–94 in *Handbook of Interview Research: Context and Method*, edited by Jaber F. Gubrium and James A. Holstein. Thousand Oaks, CA: Sage Publications.
- Cheal, David. 1991. *Family and the State of Theory*. Toronto, ON: University of Toronto Press.
- Colgrove, James. 2006. *State of Immunity: The Politics of Vaccination in Twentieth-century America*. Berkeley, CA: University of California.
- College of Physicians of Philadelphia. 2017. "Vaccine Exemptions." *History of Vaccines* 2017. <https://www.historyofvaccines.org/content/articles/vaccination-exemptions>
- Doig, J. L., McLennan, J. D., & Urichuk, L. 2009. "'Jumping through Hoops': Parents' Experiences with Seeking Respite Care for Children with Special Needs." *Child: Care, Health and Development* 35:234–42.
- Donzelot, Jacques. 1979. *The Policing of Families*. New York: Pantheon.
- Draper, Electa. 2015. "Colorado Kindergartners Have Lowest Measles Vaccination Rate in the Nation." *Denver Post*, February 3. <https://www.denverpost.com/2015/02/03/colorado-kindergartners-have-lowest-measles-vaccination-rate-in-the-nation/>
- Duggan, Maeve, Amanda Lenhart, Cliff Lampe, and Nicole Ellison. 2015. "Parents and Social Media." Washington, DC: Pew Research Center
- Durkheim, Emile. 1997. *Division of Labour in Society*. New York: Free Press.
- Edin, Kathryn and Laura Lein. 1997. *Making Ends Meet: How Single Mothers Survive Welfare and Low-wage Work*. New York: Russell Sage Foundation.
- Ernst, Kacey and Elizabeth T. Jacobs. 2012. "Implications of Philosophical and Personal Belief Exemptions on Re-emergence of Vaccine-preventable Disease: The Role of Spatial Clustering in Under-vaccination." *Human Vaccines & Immunotherapeutics* 8:838–41.
- Ewick, Patricia and Susan S. Silbey. 1998. *The Common Place of Law: Stories from Everyday Life*. Chicago, IL: University of Chicago Press.
- Fine, Michelle. 1993. "Apparent Involvement: Reflections on Parents." *Power, and Urban Public Schools* 94:694–95.
- Fineman, Martha Albertson. 2000. "Cracking the Foundational Myths: Independence, Autonomy, and Self-Sufficiency." *American University Journal of Gender, Social Policy & the Law* 8:13–29.
- Flavin, Jeanne. 2008. *Our Bodies, Our Crimes: The Policing of Women's Reproduction in America*. New York: New York University Press.
- Gengler, Amanda M. 2014. "'I Want You to Save My Kid!' Illness Management Strategies, Access, and Inequality at an Elite University Research Hospital." *Journal of Health and Social Behavior* 55:342–59.
- Gilliom, John. 2001. *Overseers of the Poor: Surveillance, Resistance, and the Limits of Privacy*. Chicago, IL: University of Chicago Press.
- Haney, Lynne. 2000. "Feminist State Theory: Applications to Jurisprudence, Criminology, and the Welfare State." *Annual Review of Sociology* 26:641–66.
- Hartmann, Heidi I. 1981. "The Family as the Locus of Gender, Class, and Political Struggle: The Example of Housework." *Signs: Journal of Women in Culture and Society* 6:366–94.
- Hassrick, Elizabeth McGhee and Barbara Schneider. 2009. "Parent Surveillance in Schools: A Question of Social Class." *American Journal of Education* 115:195–225.
- Heimer, Megan. 2016. "How to Get a Vaccine Religious Exemption." *Living Whole*. <https://www.living-whole.org/how-to-get-a-vaccine-religious-exemption/>
- Jacobs, Mark D. 1990. *Screwing the System and Making It Work: Juvenile Justice in the No-fault Society*. Chicago, IL: University of Chicago Press.
- Kurz, Demie. 1998. "Women, Welfare, and Domestic Violence." *Social Justice* 25:105–24.
- Laird, Sam. 2012. "The Rise of the Mommy Blogger." Mashable. <http://mashable.com/2012/05/08/mommy-blogger-infographic/#t8PhgZjBXEqD>
- Lareau, Annette and Vanessa Lopes Muñoz. 2012. "'You're Not Going to Call the Shots' Structural Conflicts between the Principal and the PTO at a Suburban Public Elementary School." *Sociology of Education* 85:201–18.
- Lasch, Christopher. 1995. *Haven in a Heartless World: The Family Besieged*. New York: W.W. Norton.

- Lieu, Tracy A., G. Thomas Ray, Nicola P. Klein, Cindy Chung, and Martin Kulldorff. 2015. "Geographic Clusters in Underimmunization and Vaccine Refusal." *Pediatrics*. 135:280-289. doi:10.1542/peds.2014-2715.
- Lipsky, Michael. 1980. *Street-level Bureaucracy: Dilemmas of the Individual in Public Services*. New York: Russell Sage Foundation.
- Martin, Daniel W., N. Elaine Lowery, Bill Brand, Rebecca Gold, and Gail Horlick. 2015. "Immunization Information Systems: A Decade of Progress in Law and Policy." *Journal of Public Health Management & Practice* 21:296–303.
- May, Thomas and Ross D. Silverman. 2003. "'Clustering of Exemptions' as a Collective Action Threat to Herd Immunity." *Vaccine* 21:1048–51.
- Minow, Martha. 1991. "Redefining Families: Who's in and Who's Out." *University of Colorado Law Review* 62:269–85.
- Morgen, Sandra. 1990. "Two Faces of the State: Women, Social Control, and Empowerment." Pp. 169-182 in *Uncertain Terms: Negotiating Gender in American Culture*, edited by Faye D. Ginsburg and Anna Lowenhaupt Tsing. Boston, MA: Beacon Press.
- Morris, Meredith Ringel. 2014. "Social Networking Site Use by Mothers of Young Children." Pp. 1272–82 in *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing*. Susan Fussell, Wayne Lutters, Meredith Ringel Morris, Madhu Reddy (Chairs) ACM. Baltimore, MD
- Ong-Dean, Colin. 2005. "Reconsidering the Social Location of the Medical Model: An Examination of Disability in Parenting Literature." *Journal of Medical Humanities* 26:141–58.
- Reich, Jennifer A. 2005. *Fixing Families: Parents, Power, and the Child Welfare System*. New York: Routledge.
- Reich, Jennifer A. 2016. *Calling the Shots: Why Parents Reject Vaccines*. New York: New York University Press.
- Reiss, Dorit Rubinstein. 2014. "Thou Shalt Not Take the Name of the Lord Thy God in Vain: Use and Abuse of Religious Exemptions from School Immunization Requirements." *Hastings Law Journal* 65:1551–1602.
- Roberts, Dorothy. 1999. "Welfare's Ban on Poor Motherhood." Pp. 152–67 in *Whose Welfare?* edited by Gwendolyn Mink. Ithaca, NY: Cornell University Press.
- Salathé, Marcel and Sebastian Bonhoeffer. 2008. "The Effect of Opinion Clustering on Disease Outbreaks." *Journal of the Royal Society Interface* 5:1505–1508.
- Salganicoff, Alina, Usha R. Ranji, and Roberta Wyn. 2005. "Women and Health Care: A National Profile." Menlo Park, CA: Kaiser Family Foundation.
- Salmon, Daniel A. and Saad B. Omer. 2006. "Individual Freedoms versus Collective Responsibility: Immunization Decision-making in the Face of Occasionally Competing Values." *Emergent Themes in Epidemiology* 3:13.
- Sarat, Austin. 1990. "'The Law Is All Over': Power, Resistance, and the Legal Consciousness of the Welfare Poor." *Yale Journal of Law & the Humanities* 2:343–79.
- Simmel, Georg. 1972. *Georg Simmel on Individuality and Social Forms*. Chicago, IL: University of Chicago Press.
- Stat News. 2017. "Vaccine Exemptions Are on the Rise in a Number of US States." January 20. <https://www.statnews.com/2017/01/20/vaccine-exemptions-states/>
- U.S. Supreme Court. 1905. "Jacobson v MA." 197 US 11.
- Zelizer, Viviana A. 1985. *Pricing the Priceless Child: The Changing Social Value of Children*. New York: Basic Books.

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