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## Assembling vaccine perspectives: Vaccination and moral self-talk in the journals of white US mothers during Covid-19

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### 1. Introduction

“I just can’t believe that such a large number of people would rather risk their and their children’s life than give them a vaccine that the rest of the world is begging for”

(Participant M10, July 14, 2021).

In the first year they were available, Covid-19 vaccines likely prevented at least 200,000 deaths in the US alone (Steele et al., 2022). These benefits, however, were not evenly distributed. Vaccine uptake was highest among white and Asian populations in the US and lowest among Black populations (Elharake et al., 2022; Willis et al., 2021), with rates higher among women than men (McElfish et al., 2021). Serious illness and deaths tracked along similar demographic lines (CDC, 2020; Hill & Artiga, 2022).

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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**Katherine A. Mason:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Heather M. Wurtz:** Writing – review & editing, Validation, Supervision, Project administration, Methodology, Formal analysis, Data curation. **Sofia Boracci:** Writing – review & editing, Visualization, Methodology, Formal analysis, Data curation. **Sarah S. Willen:** Writing – review & editing, Validation, Supervision, Project administration, Methodology, Investigation, Funding acquisition.

While differential access to vaccines is the most important reason for vaccination inequities, vaccine hesitancy – reluctance to accept vaccines that are offered – is also a significant concern (Calcaterra et al., 2022; Gomes et al., 2022).<sup>2</sup> In the US, hesitancy about Covid-19 vaccines has been pronounced (Cowan et al., 2021; McElfish et al., 2021), and it continues to result in poor health outcomes, with 95% of recent Covid-related hospitalizations in the US occurring among those without updated vaccinations (Leonhardt, 2024).

Qualitative social scientists have closely examined hesitancy among those who do not readily accept vaccines (Attwell & Smith, 2017; Brunson & Sobo, 2017; Poltorak et al., 2005; Reich, 2016; Richlin, 2023; Sobo et al., 2016), but they have paid less attention to hesitancy among those who do (Matthews et al., 2022; Nichter, 1995; Vanderslott, 2019). As Walker et al. (2021) demonstrate in their discussion of a “vaccine hesitancy continuum,” both vaccine acceptors and refusers can exhibit elements of hesitancy. Brunson and Sobo suggest that even a “continuum” fails to capture the complexity of vaccine perspectives for vaccine hesitant mothers: “Instead of coalescing into stark pro- and anti-vaccination polarities, or even a spectrum across a pro- and anti-divide, parents’ perceptions ... are highly complex and better conceptualized as diverse and dynamic multidimensional assemblages” (2017, p. 38).

In this study we sought to understand the “multidimensional assemblages” of vaccination perceptions that arose over time among white mothers in the US during the first two years of the Covid-19 pandemic. We analyzed longitudinal, weekly journals created as part of the Pandemic Journaling Project (PJP), a digital journaling platform and research study created by two of the authors to record and preserve ordinary people’s experiences of Covid-19. Approximately 27,000 journal entries from 1800 individuals in 55 countries were collected between May 2020 and May 2022 (Willen & Mason, 2024). This article examines a subset of 54 journals created by mostly well-educated and liberal-leaning white mothers – a population in the US that has high rates of vaccine acceptance but growing rates of refusal (Brunson & Sobo, 2017; Kaufman, 2010; Reich, 2016; Richlin, 2023; Sobo et al., 2016).

Drawing on Rebecca Lester’s concept of “dialogic interiority” (2017), we treat the journals as documentary evidence of the moral “self-talk” in which ordinary people engage when they weigh and debate vaccine choices. In their journals, our participants – almost all of whom declared an intention to vaccinate against Covid-19 – anchored uncertainties about the efficacy and safety of vaccines within a broader analysis of moral conduct under pandemic conditions. Participants did not trust their institutions or fellow citizens to act with moral integrity in their responses to Covid-19, rendering collective action difficult. By providing what Goffman calls a “glimpse into the dealings [people] are having with [themselves],” (1981, p. 119) this study offers insights into how and why Covid-19 vaccination campaigns floundered in the US – and how it might be possible to do better in the future.

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<sup>2</sup>Scholars disagree about the advisability of the term “hesitancy,” given its emphasis on individual behavior rather than system-level factors (Bedford et al., 2018; Vanderslott et al., 2022). We use “hesitancy” in this article for the sake of simplicity, while recognizing its limitations.

## 2. Methods

We analyzed online journals submitted between May 2020 and May 2022 to the PJP platform by 54 self-identified white mothers. This was a small subset of the 1800 people who contributed journals during this period on the PJP platform, where anyone worldwide aged 15+ could sign up to record their experiences of the Covid-19 pandemic (Willen & Mason, 2024). The platform ran in Spanish and English and could be accessed via smartphone or computer. After completing a baseline survey, participants created two journal entries each week in response to narrative prompts. The first prompt asked participants to discuss how the pandemic affected them the past week. The second prompt varied week-to-week and addressed a range of topics including personal finances, mental health, and social relationships. PJP was approved by the University of Connecticut IRB. Fig. 1 shows the platform interface.

While diverse in terms of income and race/ethnicity, PJP's 1800 participants were disproportionately female and highly educated. Thirty-five percent of participants had a postgraduate degree. Seventy-nine percent identified as female. About three-quarters were US residents and about half identified as white.

For this study, we focus on the experiences of a subset of the PJP sample that identified as white US mothers. We do this for two reasons. First, most of our participants who discussed vaccination in depth were white American women with children. Women of color were well-represented in the full PJP data – constituting about 30% of US-based journalers – but they were not well-represented among those who wrote extensively about vaccination. Men of any race/ethnicity were not well-represented in the full data. The reasons for this are unclear and beyond the scope of this paper, but the demographics of our data limited the potential scope of analysis.

Second, white mothers in the US – particularly well-educated and politically liberal white mothers like most in our study – have been subject to heightened scrutiny in recent years both in popular media reports on anti-vaccination movements (Lubrano, 2019; Martin, 2021) and in anthropological and sociological literature on vaccine hesitancy (Brunson & Sobo, 2017; Reich, 2016; Richlin, 2023), due to their rising rates of vaccine refusal. While vaccine refusers represent a small percentage of white American mothers, they have received outsized attention. The overwhelmingly pro-vaccine behaviors of these mothers, on the other hand, have not been as closely examined. We had an opportunity to study this behavior in our mostly vaccine-accepting sample.

To create the data subset for this study, we first selected for PJP participants who mentioned at least one of the following keywords in their journals: vaccine, vaccination, vaccinate(s/d), jab, or shot. This keyword search yielded 813 participants. Using the RAND function in Excel, we randomly selected 200 participants from this pool, to narrow down the number of journals to be reviewed without meaningfully sacrificing participant diversity. A team of RAs reviewed the full journals of all 200 participants and created analytic memos summarizing participants' vaccine perspectives. KAM reviewed all memos and made note of major themes and demographic trends. Criteria were then narrowed further to include only

white American mothers. Six additional journals from white mothers whom SB identified in an earlier review of the full data as exhibiting strong hesitancy were then added to the data subset to ensure adequate data on hesitancy.

The final subset included journals created by 54 white mothers, ranging in age from 32 to 80. While the age range of our sample was wide and included mothers of both infants and grown children, the themes found in the data were markedly consistent across age. The main difference between the content of younger and older mothers' journals was that those with grown children were more likely to discuss concerns about grandchildren and spouses in addition to concerns about their children, while younger mothers focused on their children. Participation duration ranged from four to 105 weeks, with an average duration of 22 weeks. Thirty-nine of 54 participants identified as politically liberal and 47 had four-year college degrees. Incomes ranged from <\$15,000 to \$250,000+, with most participants in the middle-income range. Tables 1 and 2 provide fuller descriptions of dataset demographics.

Once the final data subset was constructed, KAM analyzed the memos for recurrent themes using a grounded theory approach (Patton, 2002). The team then returned to the original journals to check the validity of findings and collect additional details.

Journals provide a unique source of information about individual perspectives due to the open-ended nature of the prompts, the self-directed nature of journaling, and the longitudinal nature of the project. Only three prompts of the 200 total posed asked about vaccination, and most in our sample did not respond to these (see Box 1 for sample prompts).

Thus, participants' perspectives on Covid-19 vaccines largely emerged organically while discussing other matters including social relationships, mental health, and politics. The longitudinal nature of the journals allowed us to track changes and continuities in participant perspectives over time and in reaction to different events.

### 3. Results

#### 3.1. Themes

We identified three vaccine-related themes in participants' journals: skepticism about the vaccine's ability to protect self or family, skepticism about the vaccine's ability to restore societal normalcy, and moral evaluations of the self as good citizen and others as bad citizens. These three themes were interrelated: participants were skeptical about the vaccine's utility and safety in part because they did not trust their fellow citizens to behave morally.

The themes were consistently present in large majorities of participant journals (Table 3 shows theme counts), and were consistent across political affiliation, socioeconomic status, age, and region. Similar to other literature on Covid-19 vaccine compliance in the US, we found that participants with less education and lower incomes were more likely to identify as moderate or conservative politically and more likely to exhibit greater hesitancy (Cowan et al., 2021; Morales et al., 2022).<sup>3</sup> Participants considered their vaccination options alongside

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<sup>3</sup>This is not necessarily true in other countries or for other vaccines (Attwell & Smith, 2017).

other control measures like social distancing and masking, usually writing about these topics together. The amount of space in the journals that those in our sample devoted to discussion of control measures consistently constituted at least one-half of total content.

Below we describe the themes. Table 4 provides sample quotations for each theme.

### **3.1.1. Skepticism about vaccine's ability to protect self or family**

#### **(Subthemes: efficacy, safety, long-term feasibility, government's role)—**

Participants expressed general support for the vaccine, and most mentioned that they had been vaccinated themselves, but they expressed some skepticism about the vaccine's efficacy and/or safety. Expressions of skepticism ranged from disappointment that the vaccine was not as effective as initially advertised, to conspiracy theories about the government's intentions in promoting the vaccine. Some participants who journaled during the initial vaccine roll-out expressed concerns about basic safety, while others developed concerns over time, as the ability of the vaccine to entirely prevent Covid was drawn into question. Relief that the vaccine provided protection against Covid's worst effects also mixed with worry that others' actions would continue to put self and family at risk.

### **3.1.2. Skepticism about vaccine's ability to restore normalcy (Subthemes: school opening/closing, seeing family, re-emerging from isolation, continued restrictions)—**

Early in the roll-out, hopes were high that getting vaccinated would mark the end of pandemic restrictions and an increased ability to do "normal" things like going to school, seeing loved ones, and participating in community activities. When "normal" instead remained elusive, disillusionment and anger grew for many. For more Covid-cautious participants, the increased freedoms that vaccination promised also produced increased anxiety, as participants worried about their ability or desire to reemerge into the world.

### **3.1.3. Moral positioning of self as good citizen/other as bad citizen**

#### **(Subthemes: ignorance, selfishness, privilege, responsibility, solidarity)—**

Participants felt that being a good citizen during the pandemic required making good personal decisions about vaccination and other containment measures. Individual perspectives on what constituted good decisions varied and did not always align in predictable ways: some were hesitant of vaccines but enthusiastically wore masks, while others were contemptuous of social distancing but embraced vaccination. What unified most participants was their assertions that they were acting morally and that others were not. They contrasted the perceived poor behavior of these "others" with their own attempts to do the right thing. They assumed others' behavior was motivated by ignorance, selfishness, and/or political brainwashing, and frequently lumped together their own displeasure with institutional responses and blame of individuals. Participants suggested that they were concerned with the good of the collective, while others were concerned only with themselves.

## **3.2. Participant cases**

Below we summarize three participants' longitudinal journals to show how "multidimensional assemblages" (Brunson & Sobo, 2017) of vaccination perspectives

developed over time as participants discussed Covid with themselves through moral self-talk. Observing participants' self-talk allowed us to see how and why concerns about the efficacy and safety of vaccines (themes 1&2) intersected with moral evaluations of self and others (theme 3), and how demonization of the imagined immoral "other" developed and hardened in this process. In their self-talk, participants glossed over both their own uncertainty about the efficacy, safety, and utility of the Covid-19 vaccine, and the self-serving aspects of their professed moral commitments to collective wellbeing.

**3.2.1. Donna (M51)**—Donna, a 52-year-old, middle-income, self-reported "liberal Democrat" who teaches at a community college in Utah, disagrees with most Covid-related mitigation measures. She got vaccinated but has no confidence in the vaccine's ability to change what she sees as a harmful, fear-driven social milieu. "We've been told that we had to 'wait for the vaccine' to 'get back to normal life,' but just as I've feared, even now that there's a vaccine, the fearmongering and insistence that we orient life entirely around this virus continue," she writes in February 2021. She presents her views as reflecting her concern for the wellbeing of society, particularly children. "Will young people ever get to experience a fully human life again, or will we continue to force them into isolation, slaves to the fear of a respiratory virus that, on the whole, affects them hardly more than a cold?" she asks in March 2021. Several weeks later she notes, "I worry that the psychological suffering children have endured will set them up for a lifetime of mental health problems."

Donna also thinks adults have lost their ability to tolerate risk, and in late February 2021 she complains that despite the arrival of vaccines,

"There is no end in sight, no exit strategy from the dehumanizing restrictions. Constant reporting of details that shouldn't matter to the layperson (variants!) keeps people whipped into a frenzy of fear – so much so that if the authorities (whoever they are) ever do concede that we can go back to something like normal life, many citizens will voluntarily continue to live in fear."

Donna's concerns for fellow citizens are entangled with her concern for her 12-year-old daughter, who is struggling with online learning and becoming increasingly anxious. Donna bitterly blames her daughter's suffering on what she sees as the folly of those who mistakenly think they can control the virus. She refers to her daughter's school's continued remote learning as "a travesty." She discusses how the situation is "destroying" her child's mental health. On February 23 she writes: "Children are being harmed, not only in missing out on a year's education but in missing out on a year's social and emotional development ... I can see the mental and emotional effects on my daughter, who is relatively privileged. I can't imagine the effects on children who are already disadvantaged in other ways."

Speaking of her own spiraling mental health, Donna writes "I am tired of living a subhuman existence in the thrall of an airborne virus that, in spite of whatever collective delusions we may be operating under, cannot be controlled or eliminated." She blames the ongoing Covid restrictions that vaccination failed to halt for a fatalism so deep that eventually she stops journaling: "I can't. I'm tired of thinking about it and being controlled by it. Nothing has changed. Nothing more to say."



**3.2.2. Charlotte (M10)**—Charlotte, a 39-year-old liberal Democrat, is a middle-income mother of a toddler living in the Washington, DC suburbs. Strongly pro-vaccine, pro-mask, and pro-social distancing, Charlotte’s anger with those who don’t comply with vaccine recommendations and other Covid control measures merges with anger about others’ generally uncaring attitudes. Several entries employ politically progressive talking points to highlight her own sensitivity to the needs of those less privileged than she is. In December 2020 Charlotte writes, “I am hosting my own pity party: working from home, single family home, stable income, safe daycare, healthy family, white, educated, suburban .... what the heck do I have to cry about?????” In March 2021 she notes, “A sizeable chunk of our population believes that basic measures to protect other people’s lives are beneath them or somehow trample on their own personal liberty. But I guess that is only a surprise to straight white Americans [like me] – people of color and LGBTQ have long known that their lives are not equally valued.”

In between periodic political screeds, Charlotte’s concerns are mostly personal: should she travel to see family over the holidays? Will her toddler get sick? Will her isolation continue to make her feel crazy? Charlotte always circles back to concern for her daughter: “I am on edge that I can’t trust anyone and that any person who is not masked or distanced maybe isn’t vaccinated and is bound and determined to infect and harm my not-yet-eligible toddler,” she writes in May 2021.

During her first year of journaling, Charlotte is at pains to try to understand those with opposing views. She wants to think of herself as an openminded, empathetic person and is disturbed by her inclination to judge. In May 2021 she writes, “I’m developing this massive chip on my shoulder about the whole country based on random Facebook posts and news headlines. Just like my expectation of ‘those people’ I judge without actually knowing. Hopefully ... we can all try to be more trusting and trustworthy ...”

As the pandemic wears on, however – and as the arrival of vaccines fails to bring significant relief – the tone of Charlotte’s journals becomes angrier and more desperate. By July 2021, Charlotte is openly railing against those whose obstinance she perceives as preventing her family from resuming normal lives and staying safe. She frames this behavior as an affront to her sensibilities as a mother: “I just can’t believe that such a large number of people would rather risk their and their children’s life than give them a vaccine that the rest of the world is begging for,” she writes.

By the fall, Charlotte drops her attempts to feel empathy for the other, whom she increasingly blames for harming her child. “GET ONE! GET THEM ALL! GET MORE!” she writes in October 2021 about the unvaccinated. “Or if you don’t want to be a responsible member of a civilized society that looks out for its CHILDREN then how about YOU STAY BARRICADED IN YOUR HOME so my toddler can do normal things like go to the grocery store or travel in an airplane to visit loved ones.”

The final straw comes in February 2022, when the Food and Drug Administration announces it is delaying the introduction of vaccines for children under 5 even as other Covid control measures are being lifted:

“Yes by all means let’s just open up everything, throw caution to the wind, and leave parents of young children in the lurch. ... Fuck the anti-everything assholes who let delta and omicron burn through the population and will almost certainly be tinder for the next wave that will certainly hit in 2–3 months, right in time to cancel yet another trip to see the grandparents, or a birthday party, or literally any normal thing that any family or small child looks forward to.”

Charlotte admits she is no longer willing to attempt to understand offending others: “I’m tired of bending over backwards to have empathy for people who are too selfish, delusional, scared, whatever to GET. A. GODDAMN. SHOT. ... I’m done seeing things through their eyes. They’re putting an entire generation of children’s physical and especially mental and emotional health” at risk.

In May 2022, when most mask mandates had been dropped but young children were still not eligible to be vaccinated, Charlotte writes in one of her last entries, “I STILL CAN’T VACCINATE MY KID AND IT’S IMPOSSIBLE TO FIND QUALITY GENUINE N/KN/KF MASKS FOR PRESCHOOL FACES AND ALL THE SOCIAL NORMS AND MANDATES THAT HELPED ME PROTECT MY KID’S HEALTH AND ACCESS TO DAYCARE ARE DROPPING LIKE FLIES!!!!”

**3.2.3. Holly (M52)**—The journal of Holly, a 63-year-old conservative librarian who lives in Mississippi, is full of contradictions. Holly rants about despots trying to control the population through fear and promoting vaccines just to make money – and also gets vaccinated and masks regularly. She calls masks “stupid” and complains about the “mob mentality” of those pushing Covid restrictions and vaccines. Yet she gets vaccinated as soon as her employer recommends it and continues masking even when masks are no longer required.

Holly begins her journal in March 2021 in much the same way as her liberal counterparts – talking about how she is afraid, how normal “seems just out of reach,” how the country has descended into polarized bickering, and how other people are making things worse through their stupidity. For Holly, however, the main cause of all this is the purposeful peddling of fear and lies by untrustworthy institutions and untrustworthy fellow citizens. “We’ve been misled and intentionally lied to so many times by so many people, that is it’s harder than ever to know what is fact and what is someone’s efforts to control the masses through fear,” she writes.

Still, Holly dutifully gets vaccinated, wears a mask, and enforces mask mandates at her workplace. She expresses periodic surprise at herself that she is willing to do this and finds ways to explain her behavior without challenging her worldview. In early May 2021 she writes, “I actually broke down and got my first vaccination shot. I still don’t trust the government ... I think that we as a planet have been ‘had.’ But I got the shot because a) vaccine passports will no doubt be required by some companies and transportation industries, and I want to be able to see my distant family members, and b) people seem to be quite militant in their opinions.”



Perhaps to reinforce that she nevertheless had not strayed from her beliefs, Holly then spends the next few weeks ranting about the ill effects that Covid protocols have had. Three weeks after getting her first shot she writes,

“The scariest thing about the pandemic right now is how much the ‘authorities’ seem to want to escalate the fear factor ... Oh the vaccine isn’t good enough – you’ll need another. Oh still stay 6 ft apart, wear your mask, no gatherings. Oh you will still need to quarantine to travel. Millions and millions of \$\$ in Fauci’s pocket, Bill Gates, whoever. And the public buys it all. And gets in your face if you denounce any of it. That’s really the only reason I got the vaccinations – mob mentality, which is far scarier than any germ ...”

Although Holly’s children are grown, her anger at public health controls is still tied to effects on family. Hinting at discord with her Covid-cautious children, Holly bemoans her inability to travel to see them: “The states on the left coast [where family is] are still in greater stages of lockdown than we are here, it’s way more expensive there, vaccines are less available to them, and really, nobody wants to see me anyway.”

Beneath all the anger about Covid control measures, however, a reluctant appreciation for their utility seeps into Holly’s writing. In June 2021 she notes, “the virus itself seems to be winding down. Even though I am now fully vaccinated (never thought I would do that) I still wear a mask just to keep others from having a hissy.” Two weeks later, she admits that this is not the only reason she is still masking up: “I’m still a little surprised at how I find myself feeling uncomfortable NOT wearing a mask in public, after having complained about them up to now. ... I feel insecure without them even though I have now been fully vaccinated.”

The next month, after ranting about “those commie morons in DC” who “stand to ruin my life,” she notes, “The ‘New Normal’ is pretty much established these days ... Even though I am fully vaccinated, I continue to wear a mask in public just to keep from being hassled. And even if Covid isn’t a player in the game anymore, it seems to be keeping colds and flu away as well. I’ll take what I can get”.

## 4. Discussion

### 4.1. Theoretical insights: Trust, solidarity, and health citizenship

No matter their political leanings, age, income, or family make-up, all 54 of our participants expressed a lack of trust in the ability or willingness of their institutions and fellow citizens to respond morally to Covid-19. Their concerns about whether the vaccine would protect their families or normalize their social worlds were rooted in this distrust. Widespread distrust in turn made it difficult to build a sense of common purpose and mutual responsibility during the pandemic – that is, a sense of “solidarity” (Johnson et al., 2023; Kieslich et al., 2023; Schönweitz et al., 2024; West-Oram, 2021).

Dawson and Jennings argue that “solidarity is and ought to be at the heart of ethical thinking about public health ... it allows us to see that your condition is actually inextricably related to my condition” (Dawson & Jennings, 2012; see also Prainsack & Buyx, 2012). Schönweitz et al. (2024) further suggest that solidarity during the Covid-19 pandemic involved two

sets of social expectations: that government institutions would take responsibility for, and make common cause with, their constituencies (institutional solidarity), and that members of those constituencies would support each other in contributing to control efforts (reciprocity). Our participants clearly saw that their circumstances were inextricably related to others' conditions during the Covid-19 pandemic. What were largely missing were expectations of institutional solidarity or reciprocity.

This is not surprising, given the structure of the US healthcare system. Individuals in the US are largely held responsible for their own health – both through neoliberal expectations that link personal choices to health status, and through the contingent nature of a health insurance system that is tied to individual employment rather than public services (Horton et al., 2014). The welfare state is weak, and health care remains a commodity rather than a right (Perkins, 2018). In addition, increased political polarization over the past few decades has further decreased overall trust in institutions and fellow citizens (Lee, 2022; Oxtoby et al., 2023). Our participants thus did not expect that institutions would reliably provide them with safe and efficacious solutions during the pandemic, nor did they trust their fellow citizens to take safe or effective action on their own. These low expectations, however, did not detract from their anger that things were not otherwise.

In his analysis of neoliberal approaches to health, Nikolas Rose notes that in places that emphasize individual responsibility over collective or governmental responsibility, citizens are expected to “become an active partner in the drive for health,” by personally engaging in prescribed health behaviors and avoiding proscribed behaviors, rather than relying on institutional support (Gaffney, 2015; Rose, 2001, p. 6). Our participants had strong opinions about what appropriate health behaviors should be during the pandemic, and they expressed anger toward those who did not exhibit them. But the lack of national consensus on what entailed prescribed or proscribed behaviors highlighted a problem that has always underlay the US' individualistic approach to healthcare management and which our participants also bemoaned: absent collective mandates by trusted institutions, individual self-management became a system of every person for themselves.

In contrast, in their study of solidarity during the Covid-19 pandemic in nine countries in Europe, Kieslich et al. (2023) found that these countries' strong social welfare systems produced expectations of institutional solidarity, which in turn nurtured solidarity between citizens. Kieslich's participants, “offered deep reflections about what it means to be a member of society who cares about the people around her” (2023, p. 517). Although the study found dissatisfaction with the level of institutional solidarity that participants experienced, the *expectation* of that solidarity remained strong. Even when they did not entirely succeed, social institutions in these countries were viewed as willing and able to take care of citizens' basic needs (Fiske et al., 2022; Kieslich et al., 2023; Schönweitz et al., 2024; Vanderslott et al., 2022). Solidaristic thinking among citizens followed, if imperfectly.

Dawson and Jennings argue that in the US, acting in solidarity with fellow citizens is simply “not as important to Americans as being able to chart the course of their own individual lives” (2012, p. 71). Because those focused on their individual lives expect others to be similarly focused on their own, expectations of reciprocity remain low. Covid challenged

this individualistic stance, because only through collective action to stem the spread of disease could people continue to carry on with their individual lives.

This dependence on collective action greatly frustrated our participants, who had previously guarded against the failures of institutions and other people by relying on their own good fortune and perceived good judgment. Angry that this was no longer entirely possible, they ranted about the fact that “anti-vaxxers” or overly fearful citizens were making it impossible for their own actions to keep themselves and their families healthy. Johnson and colleagues similarly noted in their study of the UK Covid-19 response that people had trouble accepting “that their own risks could only be mitigated by collective action,” and they voiced “frustration and even anger about the fact that their own behavior was not sufficient to avoid infection but that it required everyone to chip in” (Johnson et al., 2023).

Our participants’ frustrations with the need to depend on undependable others were also tied up with gendered constructions of mothers as protectors (Edin & Kefalas, 2011; Richlin, 2023; Villalobos, 2014). Ana Villalobos (2014) has shown how in the US, poor and wealthy mothers alike do not trust their social or political institutions or their fellow citizens to provide secure environments for their children, so they place immense pressure on the one person they do trust: themselves. The mothers in our sample similarly struggled with the limits of their abilities as protectors during the Covid-19 pandemic. Even financially stable and racially privileged mothers felt unable to independently ensure health, safety, and psychological security for their children and grandchildren.

This reliance on others represented a rupture with many participants’ usual approaches to parenting. Long before Covid, Reich described how some white, vaccine-hesitant mothers in the US attempted to isolate their children in “imagined gated communities” to protect them from poor and uneducated others who they imagined might be infected with diseases (Reich, 2014). For these mothers, it did not matter whether measles or mumps were a problem for others, because they felt confident in their ability to protect their own children. Covid-19 transformed the imagined into the real when it came to self-isolation – in some ways rationalizing previous paranoias about infectious others, while in other ways challenging the idea that self-isolation was an effective alternative to vaccination. Even when the mothers in our sample could protect their children’s bodies by isolating, the damage they feared their children were experiencing psychologically from Covid restrictions could only be undone with the cooperation of others.

None of these factors, however, seemed to inspire our participants to trust their fellow citizens in ways that might lend support to collective action. Instead, both self and other were reduced to what Schutz (1967) refers to as “ideal types.” The ideal-type “other” was selfish and ignorant, caring only for herself and refusing to make reasonable choices. Charlotte’s journal showed how this rhetoric can ratchet up over time, as frustration builds, and empathy is replaced by anger. At the same time, participants flattened portrayals of their own motivations as well, positioning themselves as the intelligent, kind ideal type who cares about her fellow citizens above all else. Thus, Donna framed her concern for her daughter as a concern for disadvantaged children, Charlotte framed her own frustrations as pining

in comparison to those experienced by people of color and LGBTQ individuals, and Holly framed her dislike of Covid regulations as a righteous fight against state despotism.

Our participants' professed concerns about fellow citizens, however, were always grounded in their commitments to their own children and other family members (Johnson et al., 2023; Vanderslott, 2019). Donna's narrative, for example, shows how her concern for collective wellbeing was anchored in her concerns for her daughter. She wanted both schools that had closed their doors, and those around her living in fear, to change course, because her daughter was suffering.

This foundational concern with being a good mother-protector to one's own child is perhaps most evident in Charlotte's February 2022 entry, in which she rails against the FDA's decision to delay approving vaccines for young children when local governments were lifting social distancing and masking requirements. Although the "anti-everything assholes" were now following rules set by the same policymakers and scientists she had demanded they listen to earlier – rules that had now changed to reflect the interests of the majority that did not have children under five – she felt they were still doing wrong because they were not doing right by her child. The narrative that Charlotte had woven about her righteous concern for the wellbeing of others was held together by her certainty that caring for others would protect her child. When that appeared to change, her concerns with the good of society became subsumed by her paramount concern: protecting her own child.

In sum, our participants longed for a more cohesive collective response to Covid, and they felt they were doing their part in promoting it. But their competing responsibilities as mothers, their distrust in institutions and fellow citizens, and the neoliberal appeal to individualized responsibility that put the onus of health protection on individuals, all worked against this goal. Our findings thus highlight some of challenges of building a solidaristic response to Covid-19 in the US.

#### 4.2. Methodological insights: Journals and moral self-talk

In this study we introduce journaling as a method capable of helping researchers tease out some of the complexities of vaccine decision making. By recording their thoughts without the confines of an interview guide or the performative pressures of a live interview, PJP participants were free to veer from topic to topic, follow their own trains of thought, and voice frustrations without interruption or challenge. The opportunity to observe participants' self-directed interior dialogues over time helped us understand the complexities of vaccine decision-making as well as the ways in which perspectives on vaccination, and perspectives on other disease control measures, developed together.

The journals affirm that neither vaccine acceptance, nor acceptance of other public health measures, is dichotomous or even a continuum. These perspectives also do not remain static over time, and perspectives on the full range of public health measures do not necessarily align in predictable ways. Donna favored vaccination but was against ongoing school closures, for example, while Holly got vaccinated and masked but was angry about travel restrictions. Views on these measures were nevertheless entangled, as people made decisions about the entire repertoire of control measures together, rather than in isolation

from each other. Individuals negotiated what they thought would be best for self, family, and society in particular circumstances and considered how the different tools available to them could or should be used.

The longitudinal nature of the journals also allowed us to examine how, as Rebecca Lester (2017) puts it, participants “enacted” the self over time through interior dialogues about who they were in relation to others. Lester argues that the enactment of the self occurs through the weighing of “competing models of moral responsibility” (2017, p. 23). The participants in our study weighed moral responsibilities to children, self, and community in their journals, and they tried to enact a self who was a good citizen and good mother, in contrast to the perceived poor citizenship and poor mothering of others.

In the process, participants produced demonizing, flattened portrayals of others. Yet these portrayals failed to reflect the complex “multidimensional assemblages” that characterized their own perspectives and behaviors, as the journals also showed. Thus, Holly raged against the mob mentality of masking and vaccinating, while also admitting these measures made her feel safer. Charlotte cursed the “anti-everything assholes” who might harm her child, while also belittling her own fears. And Donna complained about the inability of the public to tolerate risk in an account that centered around her own unwillingness to tolerate the pandemic’s mental health risks.

The inability or unwillingness to acknowledge that those who held divergent views were also capable of moral complexity may have been a critical barrier to effective social action in response to Covid-19 in the US. The debate over how to vaccinate the US population against Covid-19 devolved into finger-pointing. Those in favor of rapid mass vaccination were cast as either compassionate patriots or fascist dictators. Those who hesitated to vaccinate were seen as either exercising basic human rights or selfishly killing grandmothers. These caricatures not only contribute to political polarization. They also belie the fact that most people during this time were both compassionate *and* selfish – and that few were as certain of their own beliefs as they may have claimed to be.

The journals illustrate some of this complexity by allowing us to observe participants’ moral self-talk, offering a window into internal processes not often articulated out loud. Watching the process of people “enact [ing] the self” through interior dialogues provided insights into a how people think through and arrive at moral stances during uncertain times in dialogue with themselves.

## 5. Conclusions

Our observations have several implications for vaccine promotion during future epidemic events.

### 5.1. Building dialogue

Scholars of vaccination have rightly critiqued the simplistic notions that everyone can be divided into pro- and anti-vaccine camps, or that better information alone will move people to change their minds about vaccination (Enkel et al., 2018; Vanderslott et al., 2022). Our

findings support these critiques, while also suggesting that some people's positions may be more flexible than they seem. The journals show how individuals' vaccine deliberations include elements of both acceptance and resistance, how they are not always consistent in their ideology, and how these elements shift as circumstances shift.

Poltorak and colleagues argue that to reach vaccine hesitant parents, "one-way information delivery needs to be replaced by dialogue" (2005). By inviting more dialogue, and by asking more detailed questions about how and why people make the decisions they do, public health practitioners may be able to find more footholds for gaining cooperation from skeptical citizens, and citizens might find better ways to understand each other. Dialogue and listening may help those on all sides cut through the illusions of rigidity and build social trust.

## 5.2. Pragmatic messaging and solidarity

As long as institutional supports like universal healthcare are lacking and individual self-management of health is expected, Americans are unlikely to vaccinate solely as a matter of civic duty. The best way to promote vaccination in the US in the short term therefore may be to embrace the narrative of individualized health and lean into the fact that most people prioritize self and family (Motta et al., 2021). In our sample, even those who spoke passionately about the importance of contributing to a collective mission also spoke primarily of how this mission benefited their families. Messaging campaigns that highlight personal benefits of vaccination are likely to be more effective than blanket mandates, as a number of public health communications scholars have noted (Ashworth et al., 2021; Borah et al., 2021).

At the same time, our data suggest that long-term improvements in public health are only possible if institutional supports in the US are strengthened and trust is rebuilt (Gilson, 2003). Individuals can only do so much to protect their own health – they need institutional supports and commitments from fellow citizens to flourish (Willen et al., 2021). If measures are not taken to strengthen solidarity in the US, future epidemic responses may continue to meet with resistance.

## 5.3. Acknowledging vaccination risks and limitations

Public health experts, pharmaceutical companies, and clinicians must be transparent about what is known and not known about the risks and benefits of new vaccines (Freeman et al., 2022). Shying away from acknowledgment of uncertainty breeds distrust in institutions in an already distrustful environment (Carlson et al., 2023). Within our sample, concerns about vaccine safety were common, and a perceived lack of risk acknowledgment exacerbated participants' distrust. Years of disinvestment in public health also made our participants skeptical that institutions that had previously seemed so dysfunctional could produce a safe and effective vaccine so quickly.

Some vaccine advocates downplayed the degree to which Covid vaccine safety was not entirely knowable at the time of the initial roll-out, likely for fear of fueling anti-vaccination rhetoric (Higgins-Dunn, 2020; Piccirillo & Ledger, 2020). Overpromising about the Covid-19 vaccine's ability to prevent infection or end the pandemic also fueled skepticism



when these promises remained unfulfilled; for example, initial claims of 95% efficacy in Covid infection prevention proved premature (Polack et al., 2020). Participants who had eagerly awaited vaccination as a magic bullet expressed frustration as the limits of what vaccination could accomplish became clear. Feelings of disillusionment led some journalers to declare that they would not continue to vaccinate for Covid-19 in the future. Being more transparent about both the expected benefits and also the uncertainties associated with Covid-19 vaccines may have helped forestall some of these responses.

#### 5.4. Diversifying Journaling as method

The high prevalence of distrust among the white, relatively privileged women in our sample does not bode well for vaccine uptake in minoritized and underserved populations. Numerous studies have documented the ways in which racialized minorities in the US experience heightened distrust in health institutions due to histories of exploitation and structural racism (Madorsky et al., 2021; Thompson et al., 2021). It is also well-known that Black populations have been more hesitant to vaccinate for Covid as compared with white populations, despite facing higher risks of poor outcomes (Elharake et al., 2022; Willis et al., 2021). The privilege that most of our participants enjoyed prior to Covid in feeling they could protect their children from threats to their wellbeing is not shared by many mothers of color, who occupy different positions in the US racial hierarchy (Bridges, 2011; Davis, 2019). While the current study does not speak to the experiences of mothers of color, much scholarship suggests that the distrust we observed is likely to be greater among these populations. Journaling-based research methods may offer a useful way to explore this problem further. Mothers of color were well-represented on the PJP platform, but they did not speak extensively about vaccination. Future journaling studies that ask more targeted questions might encourage them to do so.

#### 5.5. Final conclusions

Our work suggests that journals can provide important insights into how people navigate the intertwining of personal priorities and normative moral obligations in real time during a health crisis. Understanding these complex moral deliberations may in turn help public health practitioners to tailor their messaging to achieve a better public health response.

The moral deliberations we observed among the white, American women in our data suggest that honest messaging that acknowledges the reality of the neoliberal environment in the US and the limitations of vaccines may help ease rancor, build social trust, and increase vaccination coverage. At the same time, our data also suggest that tweaks in messaging are likely not enough to ensure a better outcome during the next pandemic in the US. That would require a rethinking of the US health management strategy of “every person for themselves,” and the building of institutions that people can trust. Only then might it be possible to build the kind of solidarity needed to manage a collective crisis like Covid-19.

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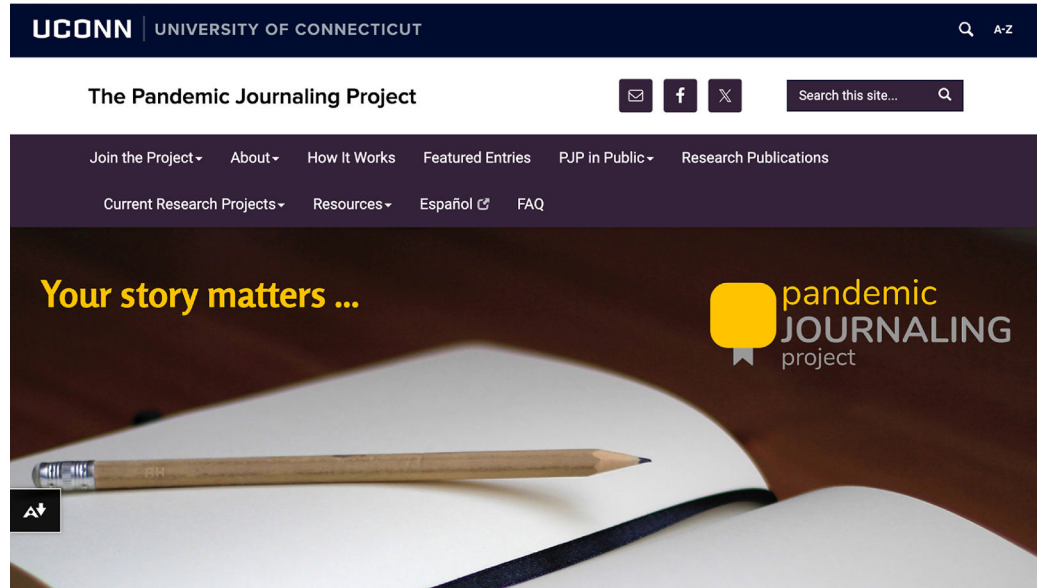
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**Box 1****Sample Prompts**

1. How is the coronavirus pandemic affecting your life right now? Tell us about your experiences, feelings, and thoughts.
2. Many of us are living with restrictions on movement and social contact. Talk about any restrictions that are especially affecting you.
3. Think about the people closest to you. Tell us about how the coronavirus has affected them, and their life.
4. Some people are feeling intense feelings right now as a result of the pandemic. Is anything making you especially sad right now, or especially angry? If so, what's on your mind?
5. Who do you trust most – either in the news or in your personal life – to explain what is going on right now? Tell us about why you trust them.
6. Do you feel that people in your community are supporting one another during the coronavirus pandemic? If so, tell us a little about this, and maybe give some examples.
7. Tell us about some of the things you think have changed most about the world since the coronavirus pandemic began.
8. Talk about how the events of recent months have affected either your work or your ability to work.
9. We hear a lot these days about the economic impact of the pandemic. Has this been on your mind? If so, tell us what you're thinking.
10. Talk about any major life events, milestones, or other important things in life that have been disrupted by the pandemic.

\*\* Full list available at: <https://doi.org/10.5064/F6PXS9ZK>.

**Main website:****Sample journaling prompt:****Choose one:**

- Some people feel like the pandemic is over, or at least like the end is in sight. Others feel the end is still far way. What do you feel, and why?
- What would you say has changed most about the world since the COVID-19 pandemic began?

**To make my second journal entry this month, I will ...**

- Write in a text box.
- Upload an audio recording (up to 16 MB).
- Upload a photograph and write about it.
- Uploading a photograph and an audio recording in which I talk about it.

**Fig. 1.**  
Project interface.



**Table 1**

Summary of participant characteristics.

<b>Characteristics of Participants</b>	<b>#</b>	<b>%</b>
<b>Age (as of 2020)</b>		
30–39	8	15
40–49	7	13
50–59	13	24
60–69	18	33
70 +	8	15
Average age	56	N/A
<b>Education</b>		
Post-Graduate Degree	34	63
Four-Year College Degree	13	24
Associate's Degree	1	2
No college degree	6	11
<b>Household Income</b>		
\$250,000+	2	4
\$200,000-\$249,999	5	9
\$150,000-\$199,999	4	7
\$125,000-\$149,999	5	9
\$100,000-\$124,999	7	13
\$70,000-\$99,999	8	15
\$50,000-\$69,999	6	11
\$30,000-\$49,999	3	6
\$15,000-\$29,999	1	2
<\$15,000	1	2
Don't know/Prefer not to say	12	22
Average household income	\$113,000	N/A
<b>Region of US</b>		
Mid-Atlantic	10	19
New England	14	26
Midwest	10	19
West/Pacific Northwest	9	17
South/Southwest	10	19
Foreign residence	1	2
<b>Political Leanings</b>		
Moderate	13	24
Liberal	38	70
Conservative	2	4
Other	1	2





One participant was a US citizen residing in the UK.

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**Table 3**

Theme frequencies.

Themes	# participants	% total participants
Skepticism about vaccine's ability to protect self/family	40	74
Skepticism about vaccine's ability to restore normalcy	33	61
Self as good citizen/other as bad citizen	46	85

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**Table 4**

Quotations illustrating themes.

Theme	Sample Quotations	Participant
<b>Skepticism about vaccine's ability to protect self/family</b>	"It's being rushed without testing protocols. If I were not a retired healthcare worker would I want to take it? Would I be forced to take it as a condition of employment? How long will it take before I'll feel safe and take a vaccine?"	M2
	"I finally got my second dose of the vaccine and I felt relieved, but then you read the news and realize half the world hasn't been vaccinated, and with all the variants out there, the sense of relief vanishes and the anxiety takes over again. How long do the vaccines protect us? Will you get a virus variant and how bad will that be if I do?"	M21
	"I actually had a lot of underlying worries about getting vaccinated ... I was hoping to have more anecdotal information from friends and through the news media about what the experience was like before I decided to have it."	M28
	"I am counting down the days until my 2nd Covid vaccine shot -- a week from now and then 10 days after that I might be immune?? But then there's the variants ... what will those do?"	M40
	"The Assholes who refuse to get vaccinated are everywhere and I don't want one of those Assholes who could have Covid sneezing or coughing or breathing on me or my loved ones, who are now all fully vaccinated. I can't control unvaccinated Assholes and that disturbs me."	M1
	"I originally was very apprehensive to receive the vaccine feeling unsure and fearful that it could have effects later. However I did end up changing my mind about getting vaccinated and did opt to receive it. ... I was worried for family members like my husband, mom, and grandson who are already considered high risk."	M54
<b>Skepticism about vaccine's ability to restore normalcy</b>	"I do not buy the argument that vaccine and booster do all that much ... I think they just delay the inevitable. I am not going to get vaccinated every few months. That is not sustainable"	M24
	"We've been told that we had to 'wait for the vaccine' to 'get back to normal life', but just as I've feared, even now that there's a vaccine, the fear-mongering and insistence that we orient life entirely around this virus continue."	M51
	"I spend more time worried than not. I thought we'd be past this, that I could catch my breath this year. It feels like 2020 just will not end, and it's already almost 2022."	M5
	"I feel a sense of relief while still feeling a lot of anxiety and agoraphobia when I contemplate rejoining society, being around people again. It's hard to imagine that return to 'normality'."	M34
	"Too many people think the vaccines will solve everything that the virus has caused because they want to believe something will make it go away."	M50
<b>Self as good citizen/others as bad citizens</b>	"I gladly got vaccinated. Not just for my own health, but for the people that I love and for the people that other people love."	M48
	"Choosing to be vaccinated means doing my part in this war against the pandemic."	M4
	"I am not scared of the virus myself but I know there are people out there that are at risk even if I'm not. For that reason I will abide by guidelines and support my community"	M8
	"This could be over, or at least under control, if not for these thoughtless people making it harder on the rest of us who do their civic duty for the good of the community"	M21
<b>Skepticism about vaccine's ability to protect self/family</b>	"I am extremely angry with people who refuse to get a shot. They are making it harder for people who have decided to get shots. They are stupid people."	M1
	"I AM irritated at the number of 'Me first' people out there. It upsets my stomach. Ending the pandemic takes participation by the whole in a spirit of charity and intent on achieving a common goal for the good of all."	M16
	"I am not afraid of the disease. I am a little bit afraid of the vaccine. But mostly I am afraid of the PEOPLE who are afraid of the disease. There's nothing scarier than 'mob mentality'."	M52



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Theme	Sample Quotations	Participant
	<p>“SAD. MAD. ANGRY. Yes, every person reluctant to get vaccinated makes me angry. How can they deny cases, hospitalizations, and deaths? How many more lives must be lost due to their reluctance? How can they deny their responsibility to be part of the best solution available at this time? What will it take to change their minds?”</p>	M4
	<p>“I would like to say that a new strain or a repeated outbreak would be easily stopped but not here in the United States. People here are so self-centered and selfish and simply don't care about things unless it impacts them personally.”</p>	M54
	<p>“Now I fear what lies ahead. More mask wearing? More shut down? I hope not, and I can't help but blame the unvaccinated.”</p>	M44
	<p>“What is wrong with these people?!? Are they idiots? Believe in science. not these ridiculous conspiracy theories ... I'm so pissed!!!”</p>	M13