

A MATTER OF TRUST: A STUDY ABOUT BELIEFS SURROUNDING THE COVID-19 VACCINE

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ABSTRACT

A MATTER OF TRUST: A STUDY ABOUT BELIEFS SURROUNDING THE COVID-19 VACCINE

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This thesis examines how members of the Church of Jesus Christ of Latter-day Saints' (Mormons) perception of medical discourse influences their understanding of diseases and their adoption of potential solutions surrounding the COVID-19 Pandemic. By exploring how individuals weigh various ideas when making medical decisions, especially those who belong to religious communities, the thesis aims to help medical professionals, public health officials, and social scientists understand how religion can influence medical choices.

Qualitative interviews were conducted with 20 members of the Church of Jesus Christ of Latter-day Saints to investigate their vaccination decisions regarding COVID-19, what information they heard about the vaccine, and what factors influenced their decision-making process. Common words and phrases were given to 34 different participants to pile sort and identify themes. Using qualitative coding and content analysis on President Nelson's, the prophet of the church, social media post about his COVID-19 vaccination, and the ensuing comments solidified themes about politics, church concepts, and past vaccination experiences.

The results revealed that personal experiences and what constitutes a reputable source played a crucial role in participants' decision-making processes. Most participants were cautious about the information they received from social media and news outlets that they considered insufficient or biased. However, personally knowing someone and their

experiences were significant factors for participants when making medical decisions. The wording of President Nelson's post served as confirmation of their decision surrounding the COVID-19 vaccine. Participants who had already been vaccinated re-evaluated their beliefs surrounding vaccinations because of the conversations around the COVID-19 vaccine. The definition of a vaccine and how it affects the body also determined whether participants viewed the vaccine as successful. Overall, this study provides insights into the influence of religion on medical decision-making and how individuals view ideas when making these decisions.

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Introduction and Background

Religion has a significant influence on people's decision making and particularly during a crisis you can see how they respond by what action is taken. I am looking at the COVID-19 Pandemic to see how religion and other traditional sources of information influenced individuals' decisions on receiving, or not receiving, the COVID-19 vaccine.

When the COVID-19 virus first started to spread in late 2019 no one knew the influence it would have on the world. The infection rates of COVID-19 continued to climb, and the various reactions and responses showed how people viewed sources of information and the experiences of those in their communities to try to understand what was going on, and the best way to keep themselves (and those around them) healthy.

To understand how people make medical vaccination decisions, filter information, and whom they rely on for information, I studied medical decisions during the COVID-19 pandemic from May to August 2022, particularly vaccination use, as a case study.

Throughout this thesis project, I treat religious texts and leaders as key information sources when factoring in different sources in the medical decision-making process. This contributes to understanding how individuals process different information sources, including news, social media, friends and family, and religious ideas, and how these are taken into account when making vaccination decisions. This will add to public health and anthropological understandings of vaccine decision-making.

Key questions this research will address are: 1) What did members consider as they were deciding if they were, or were not getting the COVID-19 vaccine? 2) Who decided to get the vaccine and is there a pattern among participants? And 3) Did members of the

Church of Jesus Christ of Latter-day Saints get the COVID-19 vaccine because of President Nelson's post about the COVID-19 vaccine?

The COVID-19 Pandemic

A pandemic is an outbreak of a disease that occurs over a wide geographical cross-continental area and affects a significant proportion of the population (Morens, 2007). The COVID-19 Pandemic, known informally as Coronavirus, spread globally with millions of cases reported worldwide. This resulted in closed borders, death, sickness, and strain on medical personnel as treatments and cures were attempted to limit the number of those afflicted with COVID-19.

Because the COVID-19 pandemic was a global phenomenon, the creation and distribution of a vaccine became a highlighted topic as a solution to social distancing and quarantines that many countries and cities were enforcing. When the COVID-19 vaccination was first created and available to the public in 2020 (Loftus & West, 2020), there was debate about the safety and effectiveness of the vaccination and the timeline of its creation and release (De Vrieze, 2020). Concerns about the long-term effects of the COVID-19 vaccination and the relatively fast testing of the vaccine caused debates on news channels (Cohen, 2020; Chiamonte & Bertorelli, 2020; Reuters, 2020), talk shows, and online (Windsor, 2023).

From a social science perspective, the phenomena of COVID-19 can be viewed as a case study to frame and understand broader issues through multiple lenses. The impact of COVID-19 since the virus began spreading in 2019 is clear, not just through the number of cases of individuals who were diagnosed with COVID-19 and experienced symptoms, but also by how information is spread. How individuals look at information to make decisions

has been researched during COVID-19 and other epidemics or pandemics including the flu pandemic of 1918 (Dubois 2017), and smallpox through vaccinations (Carter 2016). The World Health Organization (WHO), aware of the spread of information in digital and physical environments during a disease outbreak labels this spread of information as an “infodemic” (WHO nd). These infodemics officially include false or misleading information, but I would like to take this idea a step further to include incomplete thoughts and ideas that are passed around about a disease during an outbreak.

Because the COVID-19 virus currently is a relatively recent development, considerable research has focused on the pandemic; for example, previous studies have examined COVID-19 vaccination mandates (Rothstein 2021), the ethical concerns surrounding COVID-19 vaccinations for religious individuals (Zimmerman 2021), and hesitancy-related fears (Bendau 2021; Freeman 2021). When looking at religion, vaccines, and social media, publications have shown three major conclusions: religious beliefs can affect vaccination rates (Cater 2016; Galang 2021; Thomas 2021), vaccine hesitancy is promoted on a large scale through social media (Getman 2018; Francisco 2021), and social media spread information and misinformation at incredibly fast rates (Situngkir 2011; Doerr 2012).

Religion and Healthcare

Historically, anthropologists have studied religion and healthcare to understand the effects of religious beliefs on healthcare choices. This includes current publications about COVID-19 and reflects past work surrounding religion and healthcare (Dubois 2017). Not only has research shown how religion affects treatment and caring for patients of different

religious backgrounds (Schiller 1988), but also asks what objections stem from religious belief when it comes to medical decisions like vaccinations (Grabenstein 2013). Thomas (2021) found cultural and religious connections with religious groups, like the Amish, and perceptions of COVID-19 that led to limited vaccination rates.

Moreover, Galang (2021) examines the idea of science and religion for COVID-19 vaccine promotion to elucidate the role that religious leaders have in promoting vaccination rates, specifically for the COVID-19 vaccination. The author claims that leaders play a large role in gaining public trust when promoting the vaccine and proposes a collaboration of science and religion in COVID-19 vaccine promotion. Publications about the COVID-19 vaccination and religious concerns also cite ethical concerns with the vaccination's research and history (Zimmerman 2021).

In connection to religion, The Church of Jesus Christ of Latter-day Saints (Mormon) prophet, President Nelson, put out a social media post with a picture of him receiving the vaccination. In the picture posted on January 19th, 2021, he stated that he, and his wife Wendy, were receiving the vaccination as "personal efforts to be good global citizens in helping to eliminate COVID-19 from the world." (Nelson 2021). This post was made on his personal Facebook account and not through the official Church account, but still had over 14k comments, 30k shares, and 150k reactions. President Nelson's viral social media post had such an impact among members of the church, in part because of this leadership role as prophet.

The Church has stated that "the prophet is a special witness for Christ, testifying of His divinity and teaching His gospel. A prophet teaches truth and interprets the word of God.

He receives revelations and directions from the Lord for our benefit” (Church of Jesus Christ of Latter-day Saints 2018). The Church of Jesus Christ has 16.8 million members worldwide (Church Newsroom, 2021). Within the Church structure, there is one prophet with two immediate consolers and the quorum of the twelve apostles. The prophet and quorum of the twelve apostles give direction to the church and announce any policy change or doctrine.

Studies have shown that religion, healthcare, and politics are interlinked (Carter 2016; Tolentino 2018). Historically, Utah has had a large population that identifies as members of the Church of Jesus Christ of Latter-day Saints that has interlocked healthcare practices and religion (Dubois 2017). Among the comments under the post made by President Nelson were members using political, ethical, and religious terms to talk about vaccination and other medical decisions.

Research on the LDS Church and COVID-19

This research focused specifically on the Church of Jesus Christ of Latter-day Saints because it has made public statements surrounding COVID-19, has a social media presence, has structured leadership that has made personal statements surrounding COVID-19, and shared their COVID-19 vaccination status. This case is particularly interesting from an anthropological perspective because there was no edict or doctrinal directive to become vaccinated, even when leadership posted pictures of themselves receiving the COVID-19 vaccination on social media. Additionally, when addressing the public after receiving vaccinations a statement was made saying, “we urge individuals to be vaccinated. Available vaccines have proven to be both safe and effective.” (First Presidency message 2021). This “urging” and “vaccines have proven to be both safe and effective” have been interpreted

differently among church members. The personal choice included in church messaging makes this case an interesting place to explore personal experiences connected to how individuals weighed information and made decisions about vaccinations in the context of COVID-19.

Past research surrounding the Church of Jesus Christ has considered how members of the LDS Church manage stress when interlinked with medical decisions and religion by looking at identity and gender ideals using cultural consensus analysis (Dengah 2019). Additionally, Preston (2020) researched the impact of COVID-19 on single women in the church during quarantine, but COVID-19 vaccinations are a relatively new topic. The COVID-19 vaccination is a new lens through which we can view the ideas of vaccination, leadership, and religion and see how these various sources of information and overlapping fields interconnect to help decide whether to become vaccinated.

Vaccine Hesitancy

Vaccine hesitancy and COVID-19 are researched by anthropologists to understand what fears and anxieties surround vaccinations (Bendau 2021). Larson (2015) cites the most common reasons for vaccine hesitancy as the risk-benefit of vaccinations, knowledge and awareness of issues, and religious, cultural, gender, or socioeconomic factors. In further research, COVID-19 anxiety was positively associated with vaccine acceptance where distinguishing between different types of fears and the role of emotion in communication is important (Bendau 2021; Freeman 2021).

Social media, past unethical vaccination tests, and vaccine unavailability were also cited as reasons that people were not getting vaccinated (Machingaidze 2021). The internet

and social media sites are frequently listed as places where information is gathered and a reason for vaccine hesitancy (Thelwall 2021; Getman 2018; Vrdelja 2018). Because of this dissemination of ideas and fears surrounding vaccines, vaccine hesitancy is one of the top ten cited health concerns and social media has a key role in the spread of information and misinformation about vaccines (Francisco 2021).

Social Media

Algorithms in social media lead to rapidly spreading information at a much faster rate than through more traditional, non-digital social networks (Doerr 2012). An algorithm is a way of sorting posts based on relevancy to prioritize what content a user sees in their feed depending on posts or posters they have interacted with in the past. This feed is based more on relevancy to the interest of the user and not on publication time. The speed at which information is spread is especially prevalent when looking specifically at (mis)information spread online through rumors that are diffusing through people and spread over time through their digital landscapes (Situngkir 2011).

Some rumors gain traction because they align with what people already believe because information, if not corrected, gets passed on as truth (Sunstein 2008). Tanaka (2013) believes that you can train people to be critical thinkers and pick out what is most likely true from rumors to create skepticism in readers and “savvy consumers”. These savvy consumers can critically examine ideas and are less likely to fall victim to misinformation.

Theory

Social Capital and Practice

Bourdieu (1986) introduced the idea of *social capital* as the potential of individuals to secure benefits and invent solutions to problems through membership in social networks. That membership is used to secure benefits and is played out within “fields”. Bourdieu describes these fields as a place where people struggle for positions and power. Bourdieu further described the idea of *cultural capital*, where more capital equals more power. By sharing forms of cultural capital, we are sharing a sense of collective identity with “people like us” where certain forms of cultural capital are valued over others.

Bourdieu’s (1986) idea of capital is a useful framework to view the COVID-19 Pandemic and how vaccinations and religion, politics, and physical or digital social networks work as different fields that participants are part of. As individuals are putting out ideas about vaccinations, focusing on the COVID-19 vaccination, and deciding if they should or should not become vaccinated, they are spending social capital within that social field. Bourdieu’s ideas extend to cultural capital and how it is spent during the pandemic. This includes those in your social network with family, friends, and neighbors, as well as religious and governmental leaders. In this sense, social capital are social networks engaged to find information, but cultural capital is knowledge, academic credentials, and ways of speaking or mannerisms. Symbolic capital can also come into play by building on these other forms of capital with the influence of people who hold the respect of others.

President Nelson posted a picture of himself receiving the COVID-19 vaccine on January 19th, 2021. How much did it influence people to become vaccinated when the prophet posted pictures on social media of himself getting vaccinated? President Nelson was

a heart surgeon before he became the president of the church, is this referenced by members of the church highlighting his knowledge as cultural capital and a reason for individuals to become vaccinated? Meaning, do people reference it when talking with other members about vaccinations to justify their decision or say that others should be vaccinated? This could be viewed as spending cultural capital during the pandemic within a religious and health field.

Here personal experiences and knowledge is a driving force in cultural capital where “information” is probably better categorized as “personal ideas” where personal experiences have a similar weight to commonly thought of “information sources” when analyzing possible risk factors.

Biocommunicability and Media Anthropology

Briggs and Nichter (2009) assess accounts of the H1N1 virus or "swine flu" to highlight the ways that discourse about biosecurity and global health citizenship during times of pandemic calls for the creation of global surveillance systems and naturalizes forms of governance. The internet creates digital surveillance of the discourse of the public in a panopticon like way that this digital gaze makes it possible to observe and be observed. This gives citizens the opportunity to search via the internet about disease and safety. Because of these searches, the response by public health scientists was to create a system that monitors media sources labeling specific goods as unsafe. Those that swiftly report incidents are then rewarded and labeled as good citizens.

Briggs and Nichter (2009) state that we need to identify in the communicable models and pragmatic strategies that cultural politics and material inequalities give some people credit for producing knowledge about health and label the efforts of others as

noncompliance, ignorance, superstition, or cultural difference. The authors go on to state that medical anthropology of epidemics provides insights into factors and actors that shape the ongoing production of knowledge about epidemics, how dominant and competing accounts circulate and interact, how different stakeholders access and interpret the information available from different sources-including through a variety of new digital venues and what they do with it. The discourse between the consumer and the producer is empowered because of the effect communication and dialog have on individuals.

The idea of biocommunicability extends to the COVID-19 pandemic. Various actors are transmitting information about the COVID-19 Pandemic creating a dialogue surrounding the ideas of being a good global citizen and what that means when making health decisions surrounding the COVID-19 vaccination. This transmission is made through various types of media, including social media, broadcast media, and print media. This plays with Briggs' (2009) idea that medical anthropology of epidemics (or in this case pandemics) gives insight into how different accounts circulate and interact as stakeholders access and interpret information through different sources.

Hallin and Briggs (2014) engage the idea of media and medical information as they discuss the idea of news media as a means by which scientific information is transmitted to the public. The "scattered" literature surrounding medical information, because of the diverse disciplinary context without the intermingling of journalism studies and health communication that rarely cite each other, puts the writings of medicine and public health on one side of the spectrum and journalism on the other. While biomedical perspectives are seen as providing authoritative representations of medicine, journalism takes the role of

circulating pre-existing knowledge. Hallin and Briggs refer to this as the “linear-reflectionist” perspective. This creates dissonance between how people consume medical information and view media information.

Reflexivity

We as anthropologists are encouraged to look within our own community to make connections, to critically examine, and to look at how community works to shape ideas and structure. As someone who grew up in Utah, where a high percentage of the population are members of the Church of Jesus Christ of Latter-day Saints, being able to bring the perspective of someone who understands the structure of the church, cultural beliefs, and doctrinal beliefs I was able to quickly connect with members of the church who wanted to help with my research. I wanted to see how members perceived President Nelson’s social media use and if they also decided to get the COVID-19 vaccine what did they think helped them make that decision.

During the COVID-19 pandemic, like so many others, I worked virtually from home and eventually stayed with my family for a few months during the height of the pandemic. At this point, there was a lot of uncertainty about what the future held, how individual states and countries were reacting to the COVID-19 virus, debates about how the virus came to be, and the best response and solution to this global issue. Death rates and new cases were reported daily (Center for Disease Control, 2020) and news outlets reported on the effects the pandemic had on the economy, the healthcare system, and politically.

This is an experience that touched individuals and communities in ways that few things do. Everyone had some sort of experience with the pandemic because of quarantine, social distancing, or sanitation processes. I thought it was particularly interesting to see the

comments that were posted on social media sites where commentary about possible solutions to the pandemic was debated. Public figures weighed in on possible solutions and when I saw the comments under their posts, I was very interested to see how people came to the decisions they did when it came to the best solution for COVID-19 and what I had heard about a vaccine being in development. This was for me and those around me, as it was for so many others, a major talking point. Even though we were social distancing and not visiting people in person I would hear different stories, ideas, and personal experiences that tickled my anthropological brain.

In early 2020 the Church of Jesus Christ of Latter-day Saints requested that members fast for relief from the COVID-19 Pandemic. The prophet, President Nelson, came out with a second request to fast on Good Friday on April 10th, 2020, saying “I invite all, including those not of our faith, to fast and pray in two days on Good Friday, April 10, that the present pandemic may be controlled, caregivers protected, the economy strengthened, and life normalized.” (The Church of Jesus Christ of Latter-day Saints, 2020).

This request sparked the creation of a Facebook page, Worldwide United, where anyone could join and request prayers. This was fascinating to me because of my connection with the church community, seeing the traditional social networks move in tandem with social media as everyone attempted to keep up with the fast changes. The words and phrases used to describe the pandemic, vaccines, and community were emboldened by cultural communication and actions. Seeing these patterns online and in-person as these discussion about the pandemic take place because of what they felt was right, and beyond that, what the right course of action for them *and* their community would be was striking.

To try and understand how people were talking about the vaccine and their decisions surrounding their own decision concerning the COVID-19 vaccine I conducted semi-structured interviews with 20 members of the church, content analysis on President Nelson's Instagram post on January 19th, 2021, and pile sorting sessions with 34 different individuals.

Research Methods

In qualitative interviews with members of the Church of Jesus Christ of Latter-day Saints located in Arizona and Utah, participants talked about their vaccination status, thoughts on vaccinations, personal feelings surrounding the Church's response to COVID-19, and what affected their vaccination decision. Using methods from cognitive anthropology to capture shared understanding of ideas surrounding church and health, COVID-19, and vaccinations, 34 participants pile sorted words and phrases commonly used in semi-structured interviews elicited from free listing.

How social networks helped ease the interview process.

Process for interviews

This study obtained approval on May 17th, 2022, from the Northern Arizona University Internal Review Board, case 1877745-2. Initial research plans accounted for the possible disruption of data collection because of the ongoing COVID-19 pandemic by allowing interviewees to participate through virtual video calls and allowing for the option to have the researcher wear a mask if interviewing in person. Interviews were conducted with 20 members of the Church of Jesus Christ of Latter-day Saints located in Arizona and Utah in person and via Zoom.

Interview participants were selected through convenience and snowball sampling. After a participant was interviewed, they were asked if they knew someone else who would be interested in participating in this research. Some participants posted on social media, including Facebook and Instagram, asking if others were interested in being interviewed for a thesis research project. Those who volunteered were asked to participate in a one to two hour semi-structured interview about COVID-19, vaccinations, and their ideas and experiences surrounding church and health.

There might be almost 17 million members worldwide, but the intercommunity connectivity is tightly woven where practicing, or “active” members, get to know each other well because of their almost weekly communication within the ward or congregation. I was able to network with those in local wards by attending church sessions and activities or connecting with those that had someone they thought would be interesting to talk with about the COVID-19 vaccine or the pandemic.

Participants were given the opportunity to either meet virtually or in person depending on their level of comfort for semi-structured interviews. When making these appointments, I informed all prospective participants that I would be asking about their vaccination status as part of my research, but interestingly I did not have any participants ask about my vaccination status until the interview was complete. I would get a referral where the person who referred them to me told me about the person, maybe their health, or something that they experienced that made it so that they were a worthwhile person to interview.

My student researcher status also helped in gathering data for my thesis research because the community values education (The Church of Jesus Christ of Latter-day Saints,

2023), and talks (sermons) have been given on the value of education (Monson 2009). As I interviewed people, they all asked me about my family and school, how far along I was in my education, what anthropology was, and if I had talked with so and so during their interview. This perspective helped me in gathering information, and it also shaped who I talked to as well as my perception and interactions. As an anthropologist working within my own community, I took on the role of researcher and community member to have an open dialog and critically examine the events surrounding the COVID-19 pandemic with participants.

Population and Sample Size

Wards and Stakes in the church are geographically based groups, meaning members of the church who are living in a specific area are assigned to attend a ward or branch (congregation). I asked for recommendations from ward members and contacted suggested individuals to interview.

Those recommended included members of the Flagstaff Young Single Adult (YSA) wards (ages 18-30 unmarried adults who are mostly students) and those in Family Wards in Logan, Utah primarily (congregations that have married couples, elderly, and children) to see if there was interest to participate in my research. From the 20 interviews, interviewees were asked to participate in a one to two-hour semi-structured interview about COVID-19, vaccinations, and their ideas and experiences surrounding church and health.

Demographic Survey

Before conducting interviews, interviewees were asked in a free response format to identify their gender, age, political identity, vaccination status, and where they lived. Gender and the state that they lived in were answered by participants in a categorical variable being either male or female and Utah or Arizona, and political identity in a nominal variable with participants listing a political party or ideology. Participants were asked their birth year to know their exact age, making age a scale variable. With vaccination status being a key variable within the data set, all participants were asked if they were vaccinated for COVID-19 or not.

Process for pile sorting

During interviews lists were elicited surrounding ideas on church and health, COVID-19, and vaccinations. Words or phrases listed in more than one interview were automatically added to a master list of words to be used in pile sorting. Interviews were then transcribed and using Atlas.ti, a word count was generated and exported to an Excel spreadsheet for each interview. Words were categorized based on the number of times the word was said in each interview. Common words including “and, but, or, like, it, the” were withdrawn from the word count. Words that were used in less than two interviews were eliminated automatically from the overall lists.

Numerical Python (NumPy) a computer programming language data analysis system made it possible to give more weight to words and phrases used in three or more interviews. When running the raw interview word count through NumPy lower and uppercase of the same word were combined and filtered to account for duplicates where

plural words, words with the same base form ending with an S, “s”, and apostrophe S, “’s”, were combined in the overall word count.

A limit was put in place where more value was assigned to words that were used in three or more interviews and cross-compared with the overall word count. Words that had less than 125 mentions and were used by less than two interviewees were eliminated. The 119 words that passed all thresholds were printed on individual three-by-five-inch index cards with a jet printer and labeled on the back with an assigned number (see Table 1).

Table 1

Words taken from qualitative interviews used in participants’ pile sorting (n=34).

6 ft	church	Facebook	healthy	masks	panic	research	take care of your bodies
able	clinical	faith	heard	measles	people	restrictions	testing
active	Come Follow Me	false sense of security	Heavenly Father	medical	personal revelation	scary	toilet paper
agency	community	family	help	member	physical health	school	trust
anti-vaxxer	contagious	fear	home	mental health	plague	ships	unknown
autism	controversy	feel	hope	miracle	polio	science	vaccinated
bats	cough	flu	hospital	moderation in all things	political	shots	vaccine
believe	COVID	friends	illness	mumps	president	sick	vaccine hesitant
blessings	cruise	General Conference	information	needles	pro-vaccine	sickness	virus
bodies are a temple	death	give	Instagram	news	prophet	side effects	word of wisdom
booster	Democrat	good	isolation	nice nurses	protection	social distancing	worry
CDC	dentist	government	knowledge	normalcy	quarantine	social media	years

chickenpox	doctors	hand washing	life	obedient	religion	spiritual health	false
China	elderly	hard	lonely	pandemic	remember	infection	true
choice	email	health	mandate	spread	Republican	Symptoms	—

Thirty-four new participants were then given the pile of cards and asked to put words together that they associated with each other or felt like belonged together. They were told they could not keep the words in one large stack, they had to look at the words and try to match them together (meaning they could not randomly place words), and to try to not have a pile where there was only one word or phrase. If participants were sorting and asked if they could put certain words together or if they could try something the response was “you could do that” or “this is how you associate the words, your piles can look however you would like”. Those who participated in pile sorting were also asked the same demographic information as interviewees including gender, age, political identity, and location.

When asking them to explain their piles participants were asked to “title” the piles and tell me a bit about why they had decided to put these particular cards together in one pile. The responses were recorded with the titles of the piles, what cards were placed in that pile, and the individual’s demographic information. The pile information was then run through VisualAnthropac where the items were run through a cluster analysis to see how participants grouped the different words or phrases.

Content Analysis

Screenshots were taken of the personal verified¹ account of President Russel M. Nelson and his post on Tuesday, January 19th, 2021, about receiving the COVID-19 vaccination. The same post was also made on his verified Facebook, Instagram, and Twitter social media accounts. Screenshots of the post on Instagram were taken as well as replies under the initial Instagram post on January 19th, 2021. These screenshots used qualitative coding methods in Atlas.ti to view patterns and common phrases through content analysis that looked at the main theme of the replies, emojis used, and conversation threads.

Results

Themes

The themes throughout the interviews and social media posts included agency, belief, church concepts, politics, and general vaccinations and vaccines. All participants were assigned an alias or call number attached to their collected information. All quotes and referenced individuals in this research are referred to by that pseudonym.

Cluster analysis for the pile sorting was used to see if the different individuals participating in pile sorting thought of these words in similar ways and what themes they saw within these domains (see Figure 1).

¹ A verified badge is a check that appears next to an Instagram account's name in search and on the profile. It means Instagram has confirmed that an account is the authentic presence of the public figure, celebrity, or brand it represents.

Pile Sorting Cluster Analysis

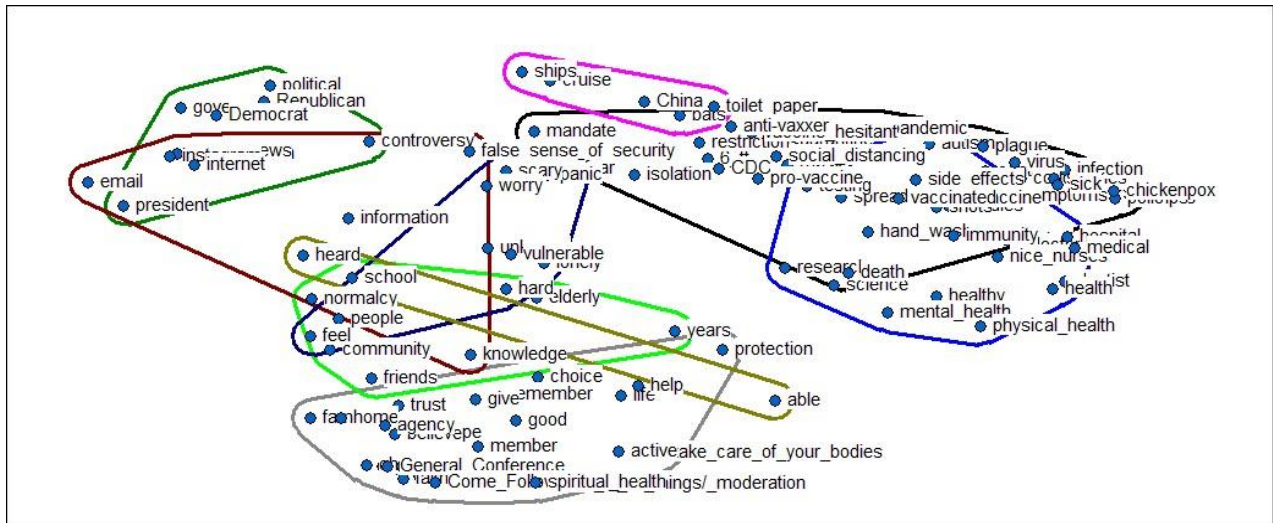


Figure 1: Cluster analysis of words used in the pile sort.

Clustered sections included pandemic and COVID-specific ideas, general health and sickness, church and community, internet, feelings and emotions, and political clusters (see figures 2-3).

When participants were finished with their sorting, they were asked to tell me why they put some of the items together and if they were to title their piles, what title would they give them. Pile names that appeared in four or more pile sorts included: political/government, community, controversy, education, faith, good, negative, spiritual, health, life, normal, people, feelings/emotions, medical, pandemic, school, social media, unknown, religion/church, vaccine, information, internet, COVID, and miscellaneous/ didn't know where to put it. This reinforced the themes found online while qualitative coding and showed clusters in how participants viewed these phrases even when not directly talking about the pandemic.

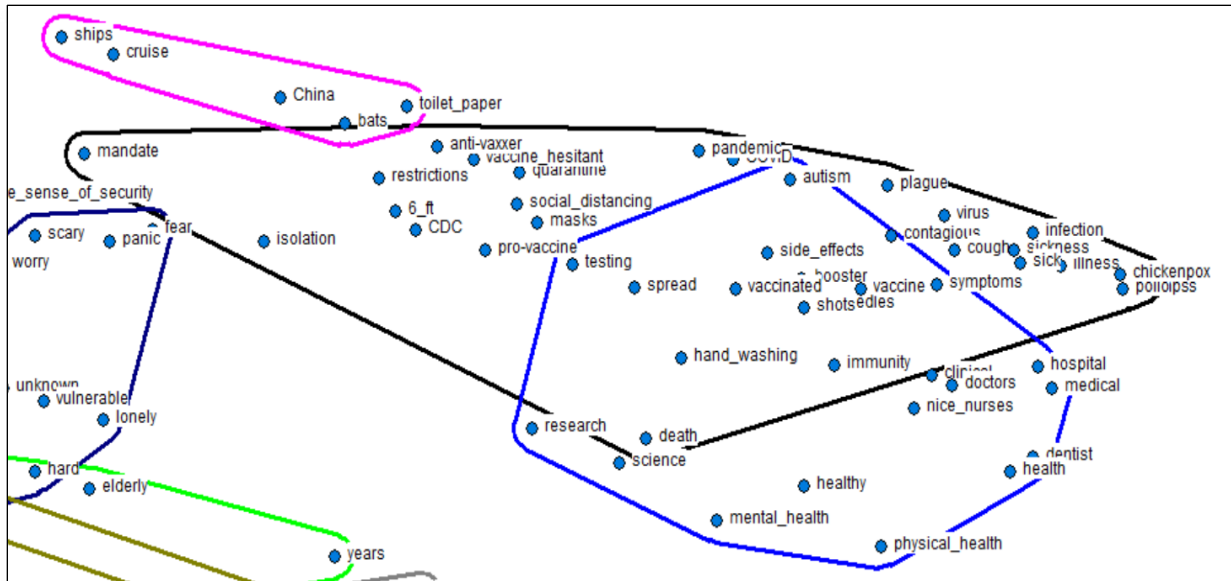


Figure 2: A closer look at clusters focusing on COVID, health, and sickness. See the cluster in pink commonly labeled as COVID-19 specific while the black cluster was more associated with pandemic and history while the blue cluster were side effects from vaccines or post and preventative treatment.

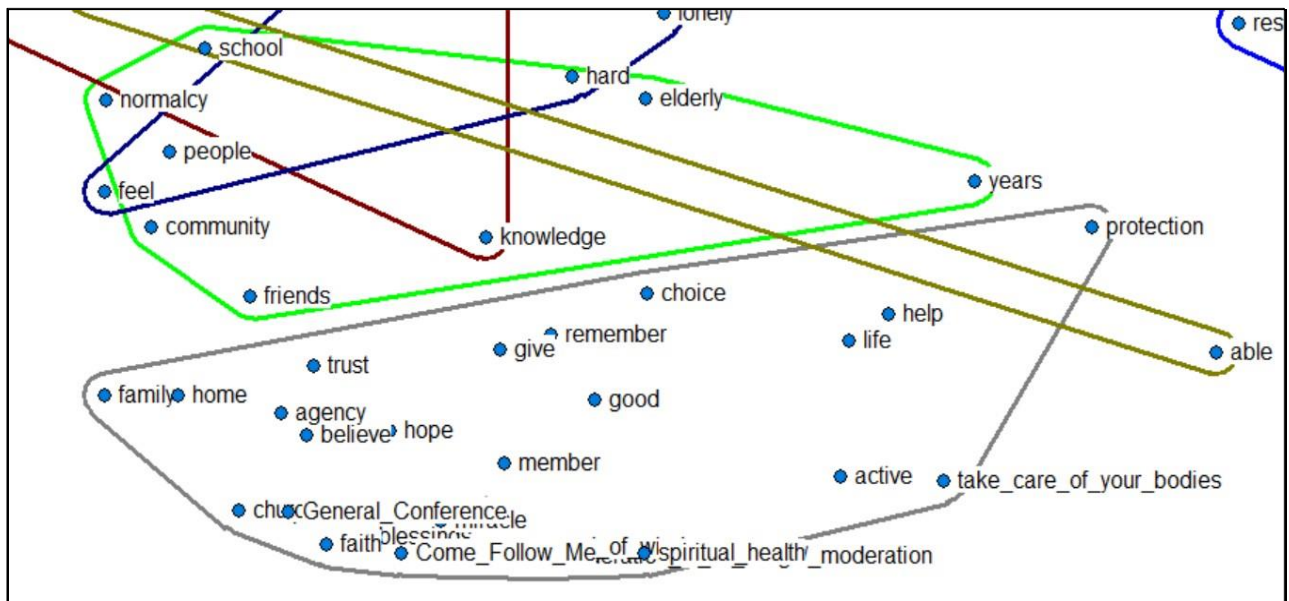


Figure 3: A closer look at clusters including religion/ church and community. All participants had a pile that related to church concepts, religion, or spirituality. You can see in the grey cluster ideas that were frequently put in that category including terms that are specific to the Church of Jesus Christ. The green cluster is associated more with community, but still had strong ties to religion.

Descriptive statistics

Using descriptive statistics, the demographic information of gender, age, political identity, and location can tell us on a surface level those who were more likely to be

vaccinated against the COVID-19 virus and how the sample size is distributed. Variables were analyzed using IBM SPSS Statistics Version 28. The age of participants who were interviewed in the study (n=20) ranged from 18 to 72 with an average age of 42.7 years old (SD = 18.1).

Of the 20 interviewed participants, 13 were female and seven were male with an overall vaccination rate of 80%. Among females, the vaccination rate was 76.9% and among men, the vaccination rate was 85.7%. (see Figure 4).

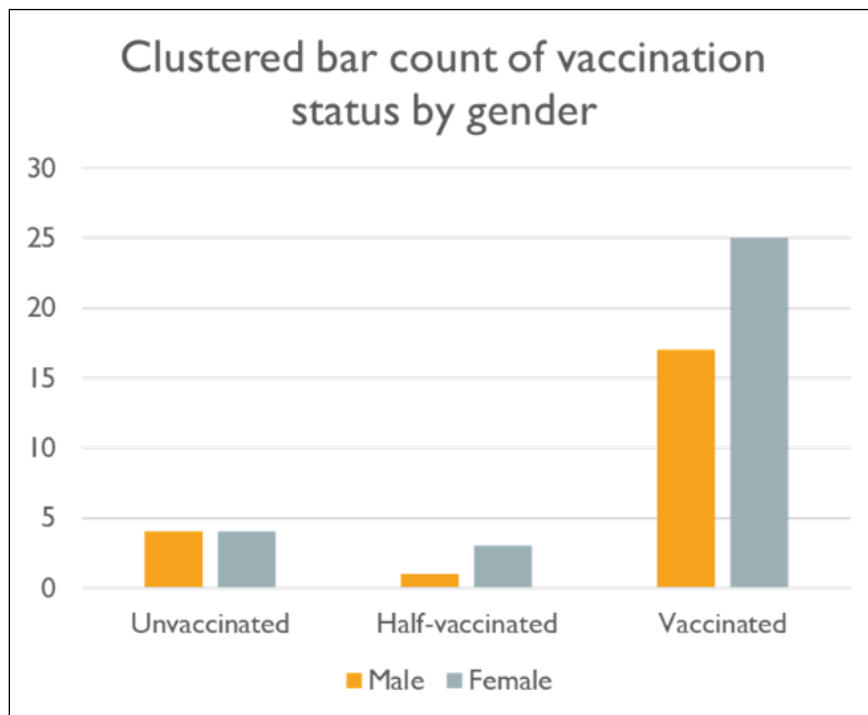


Figure 4: vaccination status divided by gender among all participants.

Additionally, 14 identified as Republican, three as Independent, two as Democratic, and one as Conservative. Democrats had a vaccine rate of 100%, Independents of 100%, and Republicans of 71.4%. Of the politically identified, only those who self-identified as Republican did not receive the COVID-19 vaccination, but Republican-identifying participants also represented most of the participants.

Including the data for those that participated in pile sorting (n=34) and interviews (n=20), there were a total of 54 participants whose ages ranged from 18 to 72 with an average of 36.7 years old (SD=16.489). (see Figure 5)

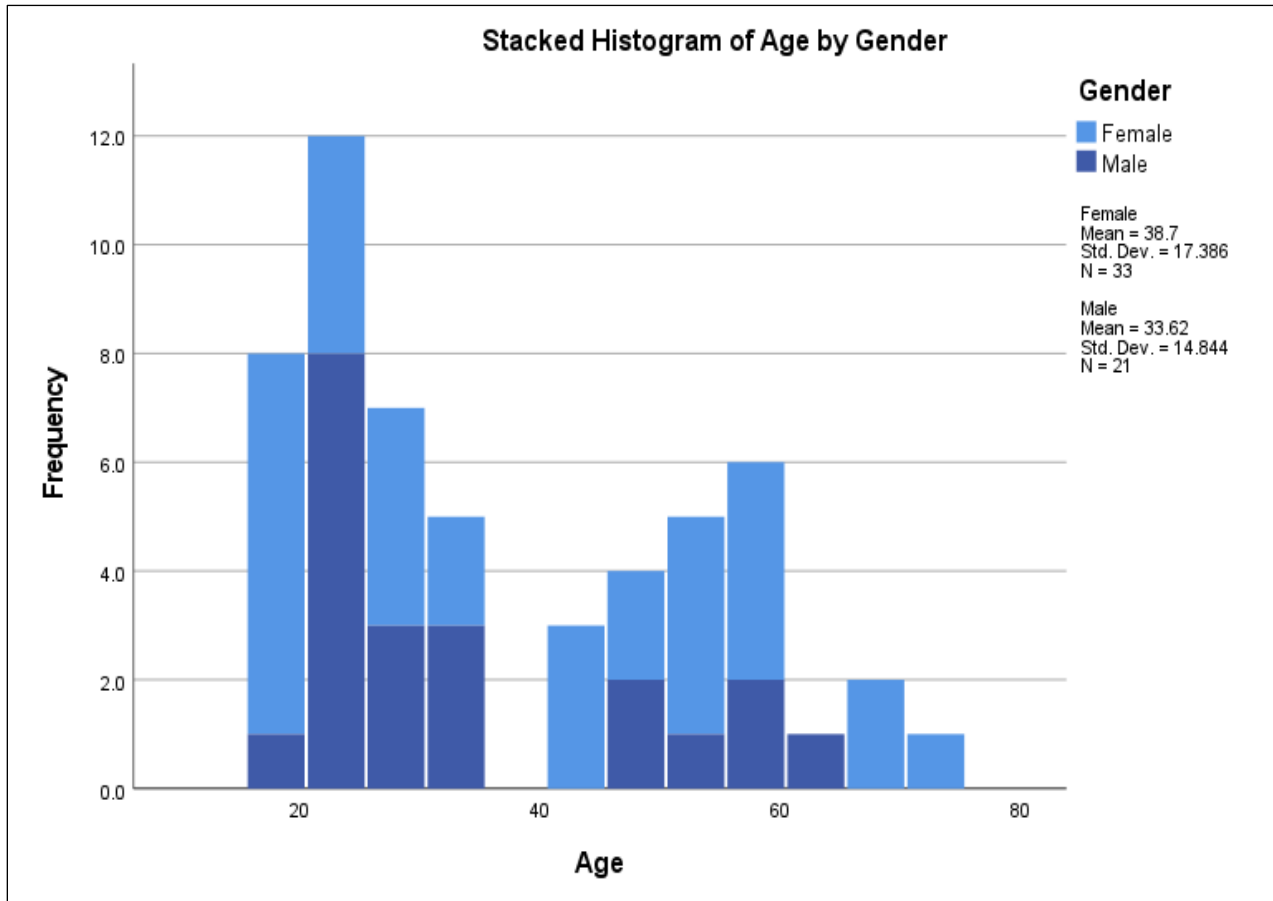


Figure 5: Stacked histogram including all participants in this study. Notice that there is a bimodal distribution of age because members in family wards (married or ages 30 and older) and Young Single Adult wards (unmarried ages 18 to 30) were the main participants in this study.

The overall vaccination rate was 77.8%, 14.8% were unvaccinated and 7.4% of participants received the first dose of the vaccine but did not return for the second dose (see Table 2).

Table 2: Vaccination statuses of all participants over the course of the study.

Vaccination Status				
	Frequency	Percent	Valid percent	Cumulative Percent
Half-Vaccinated	4	7.4	7.4	7.4
Unvaccinated	8	14.8	14.8	22.2
Fully Vaccinated	42	77.8	77.8	100.0
Total	54	100.0	100.0	

Though most of the participants were registered Republican making the representation of Republicans high in the overall study, not all participants considered themselves Republican. Instead, I discovered they were registered with the party to vote in the primaries and considered themselves Independent or Moderate.

The Church

Why members of the Church of Jesus Christ of Latter-day Saints?

Background of the church structure

This research specifically focused on members of the Church of Jesus Christ of Latter-day Saints because it is a religious group that has a structured leadership that has made personal statements surrounding COVID-19 and released their own COVID-19 vaccination statuses. The Church of Jesus Christ referred to as “the church” within this paper and in interview quotes, has a very structured leadership.



Figure 6: Church of Jesus Christ of Latter-day Saints organizational chart from October 2022.

On a global level, the church structure consists of the prophet at the head, as of January 2023 President Nelson, with two counselors, a quorum of twelve apostles, leading auxiliary, bishopric, and the seventy general authorities (see figure 6).

Locally each ward (congregation) is part of a stake or a collection of wards in a geographical area. Every ward has a bishop with two counselors that oversee a ward and these wards report to the stake president who oversees the larger stake. These stakes in turn report to a presiding area authority. Wards and stakes are geographically created, and members attend the ward assigned to their neighborhood.

It is imperative to understand the leadership structure within the church to understand the impact President Nelson's social media posts and release of his vaccination status had within the religious community. As the prophet, President Nelson “receives revelation and inspiration to guide the Church as a whole”. Revelation is defined by the church as communication from God to his children.

In this capacity, President Nelson is “designated by God to be His spokesperson and to be a teacher, revelator, and witness of gospel truths.” (The Church of Jesus Christ of Latter-day Saints, 2021). With his authority within the church structure he, and the members of the quorum of the twelve apostles, “receive revelation or communication and guidance from God” (The Church of Jesus Christ of Latter-day Saints, n.d.). President Nelson was called as the prophet of the church on January 14th, 2018, after serving 34 years in the Quorum of the Twelve Apostles (The Church of Jesus Christ of Latter-day Saints, 2021).

The ministry in the Church of Jesus Christ of Latter-day Saints is volunteer based where people with leadership and other positions within the church are “called” or have a divine direction of “stewardship” to take care of others. This means that the leadership has trained professionally in secular areas before being called to a church position. On the local level, bishopric members and other church callings or assignments are unpaid with members volunteering their time. Those that devote full-time efforts to travel or represent the church around the world receive a stipend while those that work professionally for the Corporation of the President have a salary and work within a corporate or skilled capacity.

Because of this higher calling within the church and responsibility, President Nelson, and the quorum of the twelve apostles have considerable influence spiritually and socially

within the church community. Not only does President Nelson in particular have spiritual influence because of his position as president of the church and prophet, but before becoming an apostle in 1984 and the prophet in 2018 he was a cardiothoracic surgeon. This influence is more than being a social media influencer because of his specific calling as prophet of the Church of Jesus Christ.


Nelson worked on the creation of the first heart-lung bypass machine in 1948. He then became an assistant professor of surgery and the director of the Thoracic Surgery Residency Program at the University of Utah in 1955 and made changes to the original bypass machine to make it smaller and easier to clean. The new machine was used during the first open heart operation in Salt Lake City, Utah on November 9, 1955, at Salt Lake General Hospital and was the first successful open-heart surgery in Utah. This medical background is key to understanding how his social media posts and statements were received by church members.

President Nelson's social media and press release.

With Nelson's particular background in the medical field and his office as a prophet during the COVID-19 Pandemic there became an interesting dichotomy among the members of the church when it came to receiving the COVID-19 vaccine. The COVID vaccine was developed and released to the public with press releases from the Center for Disease Control (CDC) and presidential office leading up to its release.

This separation of trusting or believing that the vaccine would be effective showed a split within the general and church community and was especially highlighted when looking at the social media post on January 19th, 2021, where President Nelson, wearing a white

button-up, tie, and facemask posted a picture of himself receiving the COVID-19 vaccination with the following caption (see figure 7). Accompanying the photograph was this statement (see Figure 8):

 **russellmnelson** • With approval from our physician, my wife, Wendy, and I were vaccinated today against COVID-19. We are very grateful. This was the first week either of us was eligible to receive the vaccine. We are thankful for the countless doctors, scientists, researchers, manufacturers, government leaders, and others who have performed the grueling work required to make this vaccine available. We have prayed often for this literal godsend.

As a former surgeon and medical researcher, I know something of the effort needed to accomplish such a remarkable feat. Producing a safe, effective vaccine in less than a year is nothing short of miraculous. I was a young surgeon when, in 1953, Dr. Jonas Salk announced that he had developed a vaccine against the cruel and crippling disease of polio. I then watched the dramatic impact that vaccine had on eradicating polio as most people around the world were vaccinated.

For generations, the @churchofjesuschrist has donated considerable resources to making vaccinations available for people in developing countries. Vaccinations have helped to eliminate diseases such as diphtheria and smallpox. My professional and ecclesiastical experiences convince me that vaccinations administered by competent medical professionals protect health and preserve life.

Receiving the vaccine today was part of our personal efforts to be good global citizens in helping to eliminate COVID-19 from the world.

Figure 7: President Nelson's Instagram post



Figure 8: Picture of President Nelson while receiving the COVID-19 vaccine.

With approval from our physician, my wife, Wendy, and I were vaccinated today against COVID-19. We are very grateful. This was the first week either of us was eligible to receive the vaccine. We are thankful for the countless doctors, scientists, researchers, manufacturers, government leaders, and others who have performed the grueling work required to make this vaccine available. We have prayed often for this literal godsend.

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For generations, The Church of Jesus Christ of Latter-day Saints has donated considerable resources to making vaccinations available for people in developing countries. Vaccinations have helped to eliminate diseases such as diphtheria and smallpox. My professional and ecclesiastical experiences convince me that vaccinations administered by competent medical professionals protect health and preserve life.

This post became a highly discussed topic among members of the church. Hundreds of thousands of replies were posted under the initial post with more reactions. Those in favor of President Nelson's shared vaccination status commented with heart and goat emojis and those against it wrote critical posts saying that as a religious leader, he should not be involved in areas outside of religion. Open letters to President Nelson were posted where

they asked him to justify his actions, others called him a fallen prophet for taking the vaccine and endorsing it.

Not only does President Nelson call the vaccine a “literal godsend” and “miraculous” as something that has been prayed for, referring to the calls for prayer and relief from the Pandemic, but he pulls on his experiences in the medical field citing other diseases and vaccinations. Particularly referencing the polio vaccine which was the first successful vaccination distributed on a wide scale through inoculation and sugar cubes (Baicus, 2012).

In-person vs online reactions

Most replies that were in favor of President Nelson’s post reacted with hearts by liking the post or putting a heart in their reply. Multiple posts said that they were grateful for a living prophet and that they thought that his medical career gave him extra credentials to be able to give his opinion on the subject besides his authority as a prophet. Still more asked specifically if anyone knew what COVID-19 vaccine he got from the options available that included Pfizer, Johnson & Johnson, or Moderna.

In my interviews, almost all participants asked if I had seen the prophet's post or if we would talk about it later. If they didn’t mention it at the beginning of the interview it was brought up at some point. I had many discussions with people about their reactions and how they felt about it and, if they read them, how they felt about the comments underneath. The in-person reaction vs the replies under the post highlighted the difference of opinions between those that support or oppose the prophet's post and the difference between online and in-person social networks.

Online reactions

Scriptures, talks, and medical professionals were referenced in support, and against the vaccine. While the posts in support of the vaccine were commonly short, posts against the vaccine included multi-paragraph replies and engaged in conversation with others under their own post and commented under the posts of others with similar views.

Casually scrolling through the post these comments would have twenty or more replies of discussion but had the same five or so usernames participating. Some comments were reposted with a few edits from a post the user had made an hour previously.

Online, most of the replies were short statements or emojis. Several replies in favor of the post said that they were grateful for a living prophet or said “We thank thee O God for a prophet” and positively and mockingly quoted a popular Latter-day Saint hymn with the same title (Fowler, 1985, 19) “follow the prophet, follow the prophet” referencing a primary children's song about Old Testament prophets where the chorus says “Follow the prophet, follow the prophet, Follow the prophet; don't go astray. Follow the prophet, follow the prophet, Follow the prophet; he knows the way.” Others talked about how this post was an answer to their prayers and that they had scheduled their own vaccination appointments.

Those against the post said that this showed that President Nelson was a false or fallen prophet, or that there were secret combinations, referencing the *Book of Mormon* meaning a secret group of people that work to gain power in a harmful way, connecting these groups to the people involved in the creation of the vaccine. One poster shared that he had left the church during COVID because he felt like there was a lack of community and that his bishop had failed in his duties by not checking in with his family during their

difficult time. Some posters sarcastically posted in response and were critical of the members of the church or of President Nelson. These posters talked about why they left the church and posted clown or laughing/ crying emojis after their comments.

A few posters asked if anyone knew if the vaccine caused infertility or how the church could justify using a vaccine that used aborted fetus cells. They had heard that in the creation and testing phase of the vaccine aborted fetus cells were used and wanted to confirm with other posters if they had heard something similar. The church's official stance on abortion is that some circumstances may justify abortion, including pregnancy that is the result of incest or rape, when the life or health of the mother is in serious jeopardy, or when the fetus has severe defects that will not allow the baby to survive beyond birth, all judged by a "competent medical authority" (Nelson & Packer, 2021). These are the only cases that justify abortion. The posters that were asking about the use of aborted fetus cells wanted to know if it was true that these cells were used in the COVID-19 vaccine, and if it was, were all the vaccines using them or was it only a select few.

Some shared that they were planning on having a family in the future and wanted to know the possibility of infertility if they did get the vaccine or read that women's menstrual cycles were interrupted once they received the COVID-19 vaccine and that they were scared about possible future pregnancies. Posters also wanted to know if there were fertility side effects if they did decide to get the vaccine.



Figure 9: A selection of comments from the thousands of replies to President Nelson's Instagram post.

In-person reactions

The importance of Revelation

Contrasting the online responses those interviewed had a different view on not only President Nelson's post but also the responses found underneath. Those in-person thought that because you don't know the relationship the posters had with the church, either being a member or someone who was no longer actively participating in the church or as trolls, they didn't pay attention to the replies and told me to read them with a grain of salt. One interviewee rolled his eyes when asked about some of the replies underneath the post.

Members saw President Nelson's post as a positive backing of the vaccination or negatively as an endorsement for something that is a personal choice. The statements and posts themselves were not questioned as much as the revelatory power behind the statement. This is where President Nelson, as the prophet who receives revelation for the Church and individuals who receive personal revelation, meaning communication from God for yourself as a child of God, saw the differences. Most saw this post as President Nelson asking people to receive their own revelation about if they would *decide* to get the vaccine. Decision and the power of choice is a core value and according to church doctrine a gift that is given to everyone through free agency.

Because of the format and wording of the post, the endorsement for vaccinations and the COVID-19 vaccine specifically was there, but without the formal announcement during General Conference, a broadcast twice a year where talks are given to the entire church, and without the phrase "Thus saith the Lord" this was not a divine directive to get the vaccine. Instead, it worked to make participants feel more comfortable getting the vaccine and as an answer to their own personal prayers or confirmation to them that they should get the vaccine. The experiential process of revelation to their prayers gave members the direction to make the choice to get the vaccine. One describes the decision below.

I just thought it was great that he put it out there. "Really?" That was part of my thought process was if he can get it, I can certainly get it. It didn't hurt him at 90- whatever. I was glad he took a stand for what he believed. But still in the end he's still letting the members choose for themselves.

- Deborah, 54

There was no official edict or doctrinal directive to become vaccinated, even when leadership posted pictures of themselves receiving the COVID-19 vaccination on social media. Additionally, when addressing the public after receiving vaccinations a statement was made saying, “we urge individuals to be vaccinated. Available vaccines have proven to be both safe and effective.” (First Presidency message, 2021). This “urging” and the introductory statement “With approval from our physician” have different interpretations among members of the church.

Though most saw it as his choice, a small fraction viewed it by saying if the prophet is getting this vaccine and he is “urging” people to get vaccinated, this meant that you should get it. His experience as a doctor, combined with his position as a prophet practically made it a doctrinal challenge. It was still a choice that each individual had to make, but because the prophet made a public statement in favor of the vaccine it became more than just a personal publication. This became something closer to biblical mistakes and rectifications where a plague was sent to the earth, or a monumental challenge or task was put forward by the Lord that faith through action is rectified.

This view aligned with online comments comparing the COVID-19 Pandemic to Moses and the serpent of brass. Where Moses made a “serpent of brass” and put it on a pole where “if a serpent had bitten any man when he beheld the serpent of brass, he lived” (Numbers 21:9). The idea behind the scriptural connection, is that the COVID-19 vaccine was a modern-day brass serpent. To negate the effects of COVID-19 all you had to do was get a shot, much like when the Lord sent the fiery serpents to the children of Israel, to be

cured they had to look at the serpent on a pole. This was a small sacrifice to show your willingness to follow the prophet and by extension, the Lord.

Those that saw it as more than a little sacrifice compared it to the Abrahamic Covenant. Thomas was critical of that view saying that he thinks it's "a little overstated" but explained the premise behind the comparison in his interview.

Thomas: People wrote about an Abrahamic test. The vaccination was for them, and they did it to show a willingness to be obedient. I think that's a little overstating. And other people came to a different decision that in no way affects their membership status in the church. This is not a commandment. It's a decision that I think is short-sighted and selfish, but they can do that.

Interviewer: What is this Abrahamic test idea?

Thomas: Abraham was commanded to go do a horrible thing, and these people felt like they were commanded to go and do a horrible thing, which is get vaccinated. And so they angsted and angsted and okay, I'll do it, kind of thing. And I'm like, it's not sacrificing your son. It's a little jab. Deal with it. It may save your life and may save a life. stop making such a big deal about it. I'm just going to get the job done.

– Thomas, 59

According to the Bible, Abraham, after waiting many years to have a child was asked to sacrifice his son on an altar by the Lord, even after he was promised blessings on his descendants. Comparing getting the COVID-19 vaccine to the Abrahamic covenant is a much stronger sacrificial comparison than with Moses and the brass serpent. Here are

strong biblical references and comparisons. This made me wonder, when it comes to the prophet posting about receiving the vaccination and using his background as a doctor, is there a separation between his two roles and experiences?

Some people felt like his experience as a doctor was part of the reason that he was called to be a prophet today. Others, like Asher, felt like there was very little separation between the two roles.

Interviewer: How do you tell the difference between this is something as a prophet versus, like, this is something with his experience as a doctor and life experience?

Asher: Well, I guess the simple thing is both of those backgrounds are enough for me to trust them. If a doctor tells me to do something or someone tells me from experience, I'll probably trust them. And if the prophet tells me to do something, I'll trust them. I guess I don't need to know the difference. I think God wants me to study out what he wants me to study and become a good servant myself. And my job isn't to question if the prophet is doing something wrong or not. My job is to have faith that the prophet was put there. I think a big struggle is that people try to have the answers on everything, and they want all the answers. But the longer I'm alive, the more I go through school, the more I experience stuff, the more I have to accept that I may just not get the answers on things. And I can either spend my life trying to get those answers or I can move forward and just take the next step. I usually find that down the road I have the answer, but I usually don't have the answer when I'm wanting it.

– Asher, 26

For Asher, it was a combination of his trust in past professional experience and prophetic experience. It was more about trust and faith than the actual issue of vaccines. The idea of trust was an overall theme in all my conversations and interviews with people. This was either in their own experiences, or personal revelation about if they should get the vaccine, or trust in a specific organization or person.

Disapproval of the post

One non-vaccinated individual, Christopher, whose family had decided against receiving vaccinations before the COVID-19 Pandemic viewed the picture with the prophet's post itself as taking things too far. He might not have agreed with the post but thought that it was President Nelson's prerogative to make a statement. Because "a picture is worth a thousand words" and the accompanying picture was used in the news with the white shirt, tie, and facemask, in the middle of the act of receiving the shot, he felt it moved the endorsement from a personal medical choice in consultation with a doctor to misleading that it was the direction for the church in its entirety. The visual representation with the classic white shirt tipped the scale over the edge more than just the phrasing of the post. Another member joked about how it felt weird seeing the picture of President Nelson without his suit coat on.

Christopher made a point to talk about the wording in the post and that the in consultation with your doctor section was very important, and he shared that with his home ward.

The point that I made in a testimony meeting and threw in that comment about, "I sustained him as my prophet, but he's not my doctor", which really riled some people. And then there were some people that came up and said, "Yeah. Dang right, he isn't my doctor".

– Christopher, 49

There were some members who were more comfortable approaching Christopher with their own opinions about the post when he made his stance publicly known in sacrament meeting. Christopher's comment "he's my prophet, but not my doctor" was similar to comments in a few of my conversations when I mentioned this phrase to those I was talking with. Some individuals said it was something they had heard at some point in their ward. Even if they themselves did not agree with this point of view, during conversations with those in their neighborhood and in chatting with other families after church services a few had heard similar sentiments. I heard this in a few different areas in different towns outside of where Christopher was located when I asked what people thought about his quote. There usually was one vocal family in their congregation that held a similar opinion.

This unacceptance of the COVID-19 vaccine was shocking to some members who viewed it as the answer to fasts and prayers. They viewed getting vaccinated more as doing their part to help with the pandemic and accepting the vaccine as the answer they had been seeking.

One of my philosophies of the vaccination was here, we're praying to Heavenly Father for help through this pandemic, and we get it, and a lot of people are ignoring it all

and that we can't pray for things and not be willing to do some of the work Heavenly Father doesn't expect us to. Okay, I'm going to give you all the water you need, but you don't have to do anything to take care of the earth.

– Brenda, 66

This goes back to the calls for prayer and commenting on the literal godsend in the creation of the COVID-19 vaccine. In other words, “I’m giving you all the water you need”.

Religion and Science

The conversations then turned to health and the connection between the church and religion, to general health and the scientific community. Most members referenced the Word of Wisdom as something they saw connecting church and health. The Word of Wisdom is a health code followed by members of the Church restricting specific things taken into the body. With this doctrinal connection and discussions of what the members perceived as the church’s stance on “modern medicine,” members saw little to no separation between their religious practices and modern medical practices.

I think the Church, which is definitely very pro-health, very wanting to keep their population healthy, and clearly the Word of Wisdom, you've always had the Church being proactive with any health things for missionaries or for whatever, and as far as I've always been aware, they've always followed the scientific community.

– Brenda, 66

Brenda and others cited President Nelson's credentials as a doctor and other past leadership with a medical background to show a close relationship between biomedicine and the church. One interviewee, when asked about the church's stance on vaccinations, pulled up on his phone and read aloud from the General Handbook of the church, where in 2021 there was a section specifically added about vaccinations to the official church handbook under the general health section. This section reads as follows:

Vaccinations administered by competent medical professionals protect health and preserve life. Members of the Church are encouraged to safeguard themselves, their children, and their communities through vaccination.

Ultimately, individuals are responsible to make their own decisions about vaccination. If members have concerns, they should counsel with competent medical professionals and also seek the guidance of the Holy Ghost.

Prospective missionaries who have not been vaccinated will likely be limited to assignments in their home country. (The Church of Jesus Christ of Latter-day Saints, 2021)

This addition of a section about vaccinations to the general handbook of the church was not shocking to members as there are regular updates to the handbook and changes in policy. Here there is the announcement connecting vaccinations to protect health and preserve life, but "ultimately, individuals are responsible to make their own decisions about vaccination."

The church's stance on medical practices and urging members to become vaccinated against COVID-19 were supported not just by the spiritual power and responsibility of the prophet and Quorum of the Twelve Apostles, but also by the medical background of President Nelson. When it came to deciding if members would get the COVID-19 vaccinations and the influence this had on their decision in most cases members had already decided if they would receive the COVID-19 vaccine and viewed the prophet's post as confirmation of their own personal revelation or if they decided not to get vaccinated that President Nelson was further emphasizing the importance of personal revelation.

Talking with friends and family

The religious and spiritual connection through personal revelation was something to be considered when making the COVID vaccination decision. It was incredibly interesting to see the conversations that surrounded President Nelson's post. All participants knew about the post even if they had not seen the post firsthand. Some did see it on social media sites, others had it sent to them, and some participants in Utah saw it featured on the religious section on their local news stations. Deborah makes the point, not only was it an easy choice to make (getting the COVID-19 vaccine) because she had already made the decision in her mind, but the Church's statement was something that she talked about with her friends and family.

I mean, even if he wouldn't have come out and made a statement, that's just something I would have done, whether the Church made a statement about it or not. But I'm glad that they did. And that's what my friends and I have talked about, that well, the prophet did come out and say the stance on what the Church's stance and that he

encouraged them. And I'm like, well, I will do what he tells me to do. We're taught to follow the prophet. But that was easy. I'd already made that decision in my mind.

– Deborah, 54

Brandy had deep discussions with her fiancée about the vaccination. When she was a teenager, her mother put in a religious vaccination exemption with her school, and she did not receive any further vaccinations. Currently, Brandy herself is against any vaccinations. Her fiancée had recently returned from a mission for the Church and as a requirement to serve he had already received the COVID-19 vaccine. This became a charged discussion for the couple as, though she had not seen the post itself, her fiancée brought it up as a reason to get the vaccination.

Brandy was the only one of my participants who sought a religious exemption to not receive vaccinations in general and identified as an anti-vaxxer. Though other participants did not get any of the COVID-19 vaccinations they would classify themselves more as vaccine-hesitant, and not against vaccinations in general, or that the COVID vaccine was different from other past vaccinations like smallpox and polio. I had also heard (with the clarification that this might just be a rumor) that bishops were not allowed to give religious exemptions for the COVID-19 vaccination because the vaccine did not go against any church doctrine, but I was unable to confirm it.

I heard it through the grapevine.

We can see how when asked about their experiences with COVID-19 interviewees framed ideas through the experiences of their friends and family, but when asked directly if they talked with friends and family about COVID the most common response was in the

negative, “no I didn’t” or “not really” before launching into their narrative. When they were asked how they first heard about COVID-19 they shared personal experiences that directly included friends and family. These personal experiences included how they first heard about COVID and the fears and concerns they had with all the fast-paced changes and precautions when it came to “stopping the spread”.

Some spoke about overhearing classmates talk about a new virus, being asked if they had heard about this thing in China, watching the news and calling family about it, or talking with a spouse. Colton talked about COVID with his friends and family as he tried to keep up with the news.

In the beginning, when the CDC was trying to figure out what was going on, I kept a lot of watch on the CDC website and such. A lot of it was from my friends and family, what they have heard about it. Not really any news outlets, so really just the CDC and then whatever people are saying... It was more a lot of information was like, for my friends, it was like where it was like when it first got to Arizona and where it was at ASU or something like that. Some kid got it at ASU in the very beginning. And then it started like out on the east/west coast or whatever that was. Mostly I heard that from my friends and classmates and stuff but like The Simpsons and stuff. I looked at, like, the CDC, what they were saying, I guess maybe not necessarily the CDC, but Google CDC and Google searches.

— Colton, 22

In the beginning, hearing about COVID was mostly as something that was a pop culture reference with classmates or joked about in the animated sitcom *The Simpsons*. This was the first encounter with a reference to the virus, before the daily case and death counts.

Laura had her university class canceled and immediately went home to her apartment near campus where everyone on their floor went to the connecting balcony to talk about the things they had heard, and their plans for the future now that class had been canceled for the foreseeable future. The start of the Pandemic completely derailed her plans for schooling and studying abroad since it was immediately canceled. She felt frustrated and in limbo because classes were put online and students were encouraged to go home, but she had signed a lease for the year, her job was there, and she had been away from home long enough that moving home was not an attractive option.

Most people's first source of information was friends and family. Colten received a message with a meme about COVID before he knew what the Coronavirus or COVID was. To him, it was just a funny meme that he didn't bother to save. Now he wishes that he saved it because of the effect the pandemic has had on his life and around the world.

Phone calls and messages and mentions of group chats to keep up with changes dotted the narratives for how people navigated the Pandemic. Passing comments about conversations and sent texts were used before sharing an experience. Family dinners were limited. Marion hosted family dinners every Sunday and would invite family and friends living nearby to join. She encouraged her granddaughter to bring friends with her since she was attending a local college. Early in the Pandemic she limited her invitation and asked that only family attend. She recalled how hard it was not to have the open invitation and some friends were offended that she limited it to just blood relatives. As a woman in her

70s who wanted to not feel alone, but also not expose herself to many different people, her solution was to limit the number of people she came in immediate contact with. Others mentioned private conversations with parents, connecting with siblings over shared views, and the use of phone calls, video calls, texts, snaps, and other messages to keep in contact.

The Related Health Professional

Along with these small modes of continual conversation and virtual contact almost every interview included mentioning knowing some health professional, including in-laws and nieces that were nurses, friends that were EMTs, uncles, parents who were doctors, and physician assistants, the list goes on. If they didn't personally have a conversation with them about COVID and the vaccine, they talked about how "so-and-so was talking with them about it and they said...".

People were asking those they knew who worked in healthcare what their opinion was about vaccinations and what they had heard about the COVID-19 vaccine as a friend in a non-professional capacity. It didn't matter what their specialty was, being professionally connected to the healthcare world meant to those talking with them that they were more up to date on current protocols and knew what was going on behind the scenes.

Their personal connection with the healthcare professional meant that they would get more individualized care or answers before the public. Asher, who worked as an EMT himself, specifically talked about making friends with people in the medical field so he could informally ask them for their medical opinion based on their specialization. These connections were then also used when talking to others about the pandemic and COVID to strengthen their main point, saying that they had talked with a professional and here are some of their experiences when it came to a, b, c. I heard this not only from interviewees

but also when hanging out with other people as they would tell me about talking with someone and the possible alternative solutions they heard were coming or reactions to the shot and past vaccination experiences.

These conversations were not part of medical check-ups or based on the type of medicine they practice, but with the idea that they would be in the know and have a more comprehensive understanding of what was going on when it came to COVID. Lila talked about her husband's work as a pediatrician and the constant change in protocols during the Pandemic, he'd go in for work and by the end of the day, the protocols and response had changed.

When talking with a doctor about this familial consultation method, the surgeon was appalled that an EMT was getting the same level of medical clout that a doctor had when it came to ideas surrounding COVID-19. He stressed the difference in expertise and length of training in their specialty. To those being interviewed, being part of the medical field gave more credibility in itself to give advice about COVID, more than the type of medicine the individual practiced. This went to support and go against getting the vaccination. Medical professionals in their lives were considered a reputable source to use while they sifted through the experiential, and information presented.

The online extension of social networks

The online extension of friends on Facebook or other social media platforms expands the idea of what friends are. Many mentioned articles that they saw on Facebook or other sites that were shared with them, but when asked about reliable sources social media sites were specifically listed as a non-reliable source while the CDC website, medical journals, and health professionals were listed as reliable.

Even those who were against the COVID-19 vaccination cited the open forum Facebook as unreliable and monitored but said that community groups were a good resource for treatment and alternative medicines. One interviewee whose wife was part of a closed homeopathic Facebook group that connected and shared information to keep those up to date on treatments and solutions talked about the discussions online with doctors all over the world. Though social networking sites were considered unreliable, these closed groups were another way for information to be disseminated. It was here that they heard about non-biomedical treatments for COVID and that initial signs of treatment were promising.

I was also told about news articles that were shared by friends through social media platforms. Having a friend share an article, and the fact that it was an article, made it a more reputable source than something that was suggested by whatever social media site they were on. Knowing the person who shared the article, or a personal experience, made it *personal* and was used in tandem with the new stations as main points when discussing health and COVID.

Members shared experiences as they took me back to when they first heard about COVID, where they were, how they felt, and how they heard about it. Rumors that they scoffed at as being ridiculous, like trackers being placed in the nose when getting tested for COVID and under the skin when getting the shot, or things that gave them pause like the politics behind the creation and approval of the vaccine or how quickly it was developed. Quarantines in the early days and ideas surrounding the economy were shared. Others talked about how COVID came to be and if it was manufactured in a lab before being flown to the United States and other key areas in the world by private jet and released. Ethan who

worked at a feed store in Arizona told me about “crazy” people coming and asking for Ivermectin, an antiparasitic pill used for deworming horses because they had heard that it was a treatment for COVID. Plenty of people told me about “rumors” or things that they “heard” about; a friend of a friend encounters shared as things that really happen.

While practicing participant observation and telling someone about my research they told me to “follow the money! You’ve got to follow the money, it will tell you everything!” insinuating that big businesses involved in the creation of the vaccine were creating buzz for profit. Everyone talked about the CDC counts and watching the news with death and case counts, but in reality, it is hard to be sure how closely all participants followed the official CDC website or if it was the numbers reported in news stations and Google search results. Apple news, CNN, NBC, FOX, and national newspapers were listed as places to watch and learn more about what was going on during the pandemic and with the distribution of the COVID-19 vaccination.

Who do you trust?

The listed ways that participants themselves had heard about COVID or kept up with what was happening (news stations, the CDC website, Google search results) came with the caveat that news stations had biases and that you need to be diligent in looking at a variety of news channels and aware of what you are watching.

My personal belief is that news outlets all have an angle, a bias, or an agenda. And so the information that they give is mostly factually correct unless there's a specific angle for it. And so COVID is one of those things where it became politicized, but certain factors always remain the same. So I guess you'd say if it was something like X, amount

of people have been infected over the last week and all of the outlets agreed, I guess there was times in WaPo, New York Times, Washington Post and those sort of the things that if they tended to agree overall about a certain factor, then I would be like, okay, this makes sense.

-Spencer, 31

This was something to be aware of on the news channels that you consumed, and I was encouraged to look at a variety of sources for my news. The back and forth about what was a reputable source and what credibility means was something that came up constantly. When asked what a reputable source meant to her Brenda emphasized the academic credentials of the creator or reporter and the fact that there was no “magic bullet” fix-all. Someone who graduated from a well-respected program, and who had training and degrees is someone who is a more reputable source.

I would really think somebody from the Harvard School of Health would be pretty reputable. Somebody from some podunk little teeny university somewhere that doesn't have a degree and it just doesn't have all those degrees or kind of in a mainstream, well-respected program, I wouldn't believe... that's what I would not call a reputable source. And so then I just go, yeah, I'm not going to do that because I just don't think there's a magic bullet. If there was a magic bullet on something, they would have won a Nobel Prize.

- Brenda, 66

As consumers of news and connected to social media sites members knew that they should be skeptical about what they were being told, but I am not entirely sure how the skepticism served them in becoming more “informed” or worked with previous biases to connect with ideas and preconceived notions.

The onslaught of different voices and comparing all the different opinions on what the best decision was when it came to many issues, not just issues surrounding COVID led to talks about connections from what are reliable sources, to who you trust.

Back then they didn't have the social media and they didn't have the TV stations, so they just had to trust. And now it's like I think that has kind of broken our trust, maybe because we have so many different avenues and so many different voices to listen to. I think it's almost like I don't even know who I trust anymore. I feel like I'm getting so many answers. Back in the olden days, you just listen to your doctor and you believe your doctor and that was all you had to go on. It's just overwhelming. We live in an overwhelming world.

– Kelly, 59

Kelly points out the heart of the issue that surrounded so many of my conversations and discussions about COVID and vaccinations. The idea of trust and who you listen to. Those in their 50s and older talked about the changes in how people communicate vs what they grew up with.

Growing up where you had one doctor you trusted compared to having the cacophony of voices of those around you with social media and news stations and

something that has “broken our trust”. Having so many people who say they have researched the topic and giving contradictory opinions lead to talking about who or what was reputable, and in turn, the consumer’s conversations went on to convincing whoever they were talking to that they had knowledge and ideas from trusted professionals.

This extended past the discussions about COVID and worked into the conversation about vaccinations their definitions and the effectiveness of not only the COVID vaccine, but other vaccines. Participants also talked about conversations they had overheard and how they thought some of those ideas were ridiculous and perpetuating an idea of fear in the United States.

I remember when I can't remember what class it was, but they were kind of having a little side discussion about vaccines and about the COVID vaccine and the booster shot and all this stuff. And my neighbors are talking amongst themselves and they're like, oh yeah, if you don't get the vaccine, you're going to die. If you get COVID, you're going to die. And I just left there and I was like, I can't believe people think that if they don't get the vaccine that they're just going to die I just thought that was crazy because we as like, social media and as the news, we've created this fear in people that if they don't get the vaccine that, oh, you have this percentage or this chance of dying. But in reality, that's not really statistic. For every single individual person, you can't say, oh, yes, you are going to die if you don't get this vaccine. So I just thought that was mind-blowing, that people really thought that they were going to die if they didn't get it.

-Brandy, 19

With differing conclusions, it became even more difficult to have open dialogs about possible solutions without becoming passionately and personally involved. This made it so that if someone thought they already knew someone's opinion on the matter they would not engage them in conversation about that specific topic. Not having contention in relationships was more important than arguing about the Pandemic when the argument would end in a stalemate.

What actually is in a vaccine?

Past experience with vaccinations and medical knowledge was very important and key in understanding people's perceptions of the development of the COVID-19 vaccine, its safety, and its effectiveness. Every participant was asked if they could tell me, to the best of their knowledge, what a vaccine is. I was told that vaccines are weakened versions of the disease, that they gave your body a road map to help fight against the disease and lessen the effects of a disease, and that vaccines gave your body immunity against a disease so that you never got it or any of the aftereffects if you did end up contracting the disease.

Two participants told me that the definition of a vaccine had changed recently. It used to be that vaccines eliminated a disease and made it so that when you received the vaccination against a specific disease you would not contract it or any of the symptoms, but in the last few years it had changed so now the definition was that it lessened the effects of the disease where you would contract it and become sick, but not as sick as you would have become if you did not get vaccinated against it.

This definition and social perceptions of what a vaccine does are important because it influences the perception of what the COVID-19 vaccine was doing to the body, what it was created for, and if it was successful. In the minds of those strongly against the COVID-

19 vaccination, because people were still getting sick after becoming vaccinated the COVID-19 vaccines were ineffective and useless, causing more harm than good. For those that were against vaccinations entirely, your body's natural ability to fight against infection and create natural immunity was enough.

...it [the COVID vaccine] was very divisive at church. There are still people that because of what happened with COVID, people that were friends, that aren't friends anymore at church, or even a lot of tension in families. Family reunion where grandma says everyone needs to be vaccinated to come to the reunion, so then half the family doesn't come. That's what happened with my wife's family. I think over time it's played out in a way where a lot of people, not off a lot of people, but the vaccination isn't really working. They've just made the default. Well, if you get vaccinated, then it won't be as bad when you get it. But truly, if the vaccination is working, you wouldn't be getting it at all. So I think over time, people are saying, well, things didn't really work as expected. And so it's just kind of slowly going away.

– Christopher, 49

Christopher states that “if the vaccine is working, you wouldn’t get it [COVID] at all”. These ideas about what a vaccine actually is, and past experiences with other vaccinations framed approaches and ideas surrounding the COVID-19 vaccination. The question of “What you are actually putting in your body?” became more pronounced with the COVID-19 vaccine discussions.

The back and forth about what a vaccine does to the body was central in the debates, conversations, and ideas surrounding not only COVID-19 vaccinations, but polio, smallpox, tuberculosis, rubella, measles, mumps, and the flu- all vaccination and diseases that were talked about alongside COVID. Because the COVID-19 vaccine had not been on the market long and we did not know the long-term effects it could have, or the possible side effects or bad reactions some were more hesitant to receive the COVID vaccine than they were for long-standing vaccines that have eradicated diseases and shown few long-term side effects.

When asked to free list what they thought of in connection to vaccinations “autism” came up enough that it passed all thresholds and was used in the pile sort. A majority of those that listed it said that they knew that autism is not a result of vaccinations, but it was something that came to mind, and for those sorting the words it was one they struggled to put in a pile with a connection to the other words and phrases. One interviewee referenced *The Lancet’s* published article in 1999 connecting the Measles, Mumps, and Rubella (MMR) vaccine and autism (Wakefield, 1999). He ridiculed the connection and cited the official retraction of that article in later years (Eggertson, 2010). Another father talked about his own family’s negative experiences and bad reactions to vaccinations and the difficulties they had in their own experiences, connecting his son’s learning difficulties to vaccinations that he had received as a small child.

This connection on what we take into our bodies continued, but the eradication of disease and the history of the development of vaccines took a more prominent position in conversations.

I think they're miraculous. When you consider what the polio vaccine has done around the world, measles, mumps rubella. The fact that smallpox has been eliminated. Unless some variant emerges. It's been so frustrating to me that people's lack of awareness of history, the things that used to just leave our population vulnerable and terrifying, we don't even think about. And so, yeah, the development of vaccinations is absolutely a huge huge contribution to the history of health. It's great. I've been getting shots my life. I got a smallpox vaccine. But you probably didn't because by the time you came along, there was no smallpox in the world anywhere. It has been eradicated. It's a miracle. It's phenomenal. TB, that's more a test, not so much a vaccine. But I didn't have the polio that you probably didn't have. Probably by the time you came along, it was no longer necessary. So, yeah, I've had all the shots that came and go to the school of years.

-Thomas, 59

Polio and smallpox were pointed out consistently as something that is not an issue because of vaccinations, and those vaccines were no longer required for children. The vaccines that were no longer required were not needed because the creation and use of vaccines worked so well that they were “no longer necessary”. The length of time a vaccination had been on the market and the reactions to more long-standing inoculations and vaccinations were considered more reliable than newer vaccines where the long-term problems were unknown. Here some talked about the history of inoculations and the presence of smallpox and practices in early America where Thomas Jefferson, Benjamin Franklin, and George Washington's stance on inoculations were mentioned.

Concern about politics

While historical precedence for smallpox inoculation was mentioned, the political ideas behind vaccinations and mandates were also points of concern. People saw COVID-19 and the vaccination as something with a lot of “unknown information” and that there was too much politics involved in it, that those who were not medical professionals were making decisions. In some cases, interviewees thought that the medical professionals in charge were being forced to give results prematurely because COVID-19 was so widely known to the public.

Having such governmental involvement was concerning. Many said that the administration’s response to the Pandemic, making it a political issue instead of a public health issue, is a large reason that there was such controversy surrounding the COVID-19 Pandemic and as a result of that, the COVID-19 vaccination. As one mother put it “I’m a believer in vaccines, but I also trust my intuition more than I trust the government”. To her, the government was pushing the COVID-19 vaccinations. She did not feel good about the COVID-19 vaccination and the government’s involvement was something she did not trust in its development and push for vaccination.

Mothers talked about how they would always just take their children in for their shots, they considered getting their children vaccinated as routine. It was just part of what you did and when going into the school system, a requirement that your child receives certain vaccinations before attending any classes. Getting their children vaccinated or getting their own vaccinations was normal.

A few mothers talked about spacing out the required vaccinations because, though they were not against vaccinations, they were against flooding or overwhelming their

child's system with shots. The fact that they don't know exactly what is in a vaccine was concerning. One parent talked about reading the ingredients on vaccines saying that some of the ingredients were not listed and available to the public as alarming. She compared the foods you eat and other things you take into your body to vaccinations. If it is really important to pay attention to the foods you eat and take care of your body, why would you put an unknown entity in it like vaccinations?

These online and in-person debates and conversations not just about the COVID-19 vaccine, but vaccines in general made participants reevaluate their own experiences and ideas about vaccinations as a whole. This idea that it was just something that you do, routine for yourself and your children and that it was the best choice for their health was challenged. Even though they viewed the standard vaccinations required to attend public school positively, the discussions about the ingredients and side effects of vaccinations that came up because of the COVID-19 vaccinations made them more vaccine-aware or vaccine cautious, but not outright anti-vaxxers.

Theoretical Analysis

When it came to ideas of what to believe, people put the things that they heard into the categories of what they believed and were skeptical of. The prophet's social media post was acknowledged for the most part as comforting to see someone they trust get the vaccine at such an old age and be fine, but not what made the final decision on if they got the vaccine. Rumors of a vaccine in development had already been circulating and the Pandemic had already been discussed with family and friends. These connections, perceptions, and ideas surrounding the COVID-19 vaccinations help us understand bio-communicability, social capital, and rumors.

Bio-communicability

These connections work with Briggs and Hallin's idea on bio-communicability works well with seeing how factors and actors shape production and knowledge of epidemics. The COVID-19 Pandemic has several competing accounts that circulate and interact with each other. We see this in how people talk about the side effects of vaccines and issues with how different media transfer scientific information. This includes the memes sent over text, jokes in *The Simpsons*, Facebook groups, Instagram, Snapchat, and shared news articles. These informal avenues have a strong hold on how ideas are consumed.

With COVID-19 in particular there were no peer-reviewed journals to read about the ideas and consequences it represented. New information was presented daily and as stated by the medical professionals I interviewed; protocols were changed from the time they started work to the end of their shift. There's also a dissonance between medical journals and news journalism during the Pandemic. The CDC used digital media to transfer case numbers and hold press conferences to bridge the gap between the general public and the biomedical community. As the pandemic continued these continual updates did help some feel better about the vaccines, but for others, as time went on, the governmental connection with these press conferences made them untrustworthy. The listing of alphabet soup acronyms, KSL, CNN, FOX, and ABC, listing it just as the local news is how most people interacted with information about COVID in an effort to keep up to date.

These digital landscapes where information and news are disseminated transmit ideas more quickly than traditional physical social networks. With social distancing, there was a tightly woven interconnection between the virtual and the physical interactions that

tie humans together so closely and people replaced in-person communication with video communication. The speed of information dissemination through the use of these digital landscapes was incredible. My interviewees talked about who they trusted when it came to finding facts about the vaccine and case counts to cross-compare what they had heard about COVID-19. There was distrust about where to find out the truth. Though they were skeptical about the ideas they were interacting with people were still spreading rumors by putting forward ideas that they prefaced by saying it was something they heard, didn't know if it was true, or outright stating it was a rumor they had heard.

The Church's social media interactions would have happened on a virtual platform regardless of the message because of the global scale of the church, but the social media posts connect directly to many people who used the same platforms to connect to their personal social networks. This allowed discussions in the comments underneath a post that a press statement simply does not allow. As those connected to President Nelson's post through their own social media accounts, there was discourse in the comments where people were allowed to comment on their feelings, concerns, and ideas.

Social and cultural capital

President Nelson because of his status in the church and his background as a medical professional and a surgeon was able to utilize cultural and symbolic capital to support the COVID-19 vaccination. Others spent capital either by their own status in the medical field, or their relation to someone in their personal social network who was part of the medical field. Backgrounds and knowledge about health, personal experience, and research were used as key components when using this capital to convince listeners to see

their perspective. This is where the idea of being informed was such an important part of cultural capital and convincing others that you had the background to influence them that your point of view on COVID-19 was valid.

Those engaging on social networking sites, digitally sharing news articles, and other ideas were engaging in the use of social capital. Here is where Bourdieu's framework allows us to see these instances of social and cultural capital in the interconnecting fields in the COVID-19 vaccination discussion. The small comments about the use of President Nelson's image in the classic white shirt and tie and how in one case it was weird to see him outside of his suit coat, and another saying that the image pushed the narrative too far in one direction is an example of the capital Bourdieu critiques.

Conclusion

Future works

This research explores how members of the Church of Jesus Christ of Latter-day Saints (Mormons) perception of medical discourse affects the understanding of disease and adoption of possible solutions using COVID-19 as a case study. Future work could be done by continuing the discussion within the community about other vaccinations or following up as perceptions about the COVID-19 vaccine continues to evolve and change.

Research into how homeschooling affected parents' decisions could be used in further research about vaccination choices in general when looking at the required vaccinations for attending public school. This in particular is interesting because it was brought up by some parents in relation to vaccines that they knew families that only

decided to get their child vaccinated because they attended the public school system but might not have otherwise.

Continual work would ask for registered political parties and how participants politically identified. Some participants in this study became confused when asked how they politically identified and I received a variety of responses including party and ideology, but after in some cases where participants listed their party, in talking more with them I found that they might be registered with a particular party to be able to vote in the primaries, but they did not identify with that particular political party.

This study also focuses on members of the church mainly in the “Mormon corridor” (Arizona, Utah, and Idaho) and does not capture the opinions of members in other states located in America or for members located around the world. “Utah Mormons” have some distinct cultural differences from members in other areas. This study does include “Utah” and “non-Utah” members, but a global study that includes members outside of the area could give us more rich data to analyze on a broader scale in the United States and globally.

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