Aidan Martin

Covid-19 Vaccine Misinformation Trends in Facebook Groups

"I will NEVER get the jab!" (Watkins, November 15). "Imagine being stupid enough to let yourself be injected twice with an experimental vaccine" (Kyra, November 23). Sensational comments like these are commonplace within anti-Covid vaccine Facebook groups. Since the beginning of the Covid-19 pandemic, it seems like we have all known people who share this sentiment as well. Within this essay I researched why Facebook groups seem to be a sanctuary of Covid-19 misinformation. To do this, I found an active anti-Covid vaccine Facebook group and analyzed some of the top featured posts within the group. I used various questions to probe deeper into the posts to understand more of why these people believe the Covid vaccine to be harmful, not only to themselves but to others as well.

I chose to analyze Facebook groups because not only are they one of the most consistently talked about breeding grounds for Covid-19 misinformation, but also because there has been much evidence of the site actively working against targeting such misinformation. In fact, Frances Haugen, a former employee of Facebook, has recently spoken out against Facebook's malpractice when dealing with misinformation in a recent *60 Minutes* interview. Within this interview she reveals that conspiracy theories, hateful content, and divisive and polarizing content such as Covid-19 misinformation and fake news is actually promoted on the website because its algorithm finds it to be some of the most engaging content on the site (Pelley). This makes people stay on Facebook longer and see more ads, ultimately making the

company more money. With all this information, Facebook seemed like the perfect social media website to analyze and target for this research.

First, it is important to understand some of the background information regarding this widespread issue. There is a key difference between "misinformation," "fake news," and "disinformation." Two researchers, Ramitesh Kant and Rufino Varea, explain the differences in their paper entitled "Spreading (dis)trust in Fiji? Exploring COVID-19 misinformation on Facebook forums." They say:

> misinformation involves inadvertently sharing false information without intent to cause harm, disinformation involves incorrect information knowingly being created and transmitted to cause damage. 'Fake news' is the term that has received the most attention; but it is arguably problematic in terms of definitional rigour. Lazer et al depict it as fictitious, made-up information that imitates news media content, but this does not capture the complexity of the phenomenon, which can include both satire and information created deliberately to mislead as a means to achieve a political or another goal. (Kant & Varea 64).

Basically the authors cite the main difference between misinformation, fake news and disinformation as the intent to deceive or cause harm. While disinformation is spread with purposeful deception, misinformation comes from a place of genuine misunderstanding. Fake news is similar to disinformation, as it is also purposeful made-up information, but the key difference is that fake news attempts to imitate media content. All three of these concepts have frequently appeared in debates regarding the Covid-19 pandemic.

For my research, I found a Facebook group called "No, Thank You! (No COVID-19 Vaccine)." This is a public Facebook group consisting of 471 members that was created on

September 25, 2021. During the month of November 2021, this group uploaded 189 posts. Over the course of a week I analyzed the top 20 recent posts in the group, documenting comments and likes, as well as breaking down what kind of post it was and analyzing not only what the post was saying, but also what comments said. I found my data to be consistent with findings in many peer-reviewed sources regarding similar topics of misinformation. I also found a trend of this misinformation creating a cycle that victimizes the users within such groups.

For example, one poster explains how one of their main concerns for the vaccine is a rare side effect that causes heart enlargement because they lost a friend to this condition. They also share that the speed in which the vaccine was produced worries them. These are both consistent concerns that line up with research done in The International Journal of Clinical Practice, which polled 759 people in an online survey. The data showed that 27.7 percent of these people did not feel comfortable taking the vaccine due to concerns regarding side effects, and 27.4 percent felt uncomfortable with the novelty of the vaccine (Akarsu et al., 8). This shows that these concerns are quite common and are part of a larger trend of hesitancy towards the vaccine.

Another top featured post on the Facebook group I analyzed was a picture of a billboard that read "Trump may have hurt your feelings, but Biden is hurting your family, finance and your freedom" (Stone, November 14). Although on the surface it may be confusing how a post like this links to an anti-vaccine mindset. However, it actually shows a prevalent trend within such groups. The ideas and beliefs surrounding Covid-19 information have been highly politicised since the beginning of the pandemic. In fact, a research study was done to gauge what people on different ends of the political spectrum in America believe about Covid-19. These researchers found that in regards to the Covid-19 pandemic, "the more participants described themselves as conservative, the less they enacted health protective behaviors" (Stroebe et al., 7). They also

found "across all time points that the more participants describe their political orientation at baseline as conservative, the lower they perceived their risk of infection" (Stroebe et al, 7). Therefore, there is a strong link between right-wing American political actions, such as supporting Donald Trump as in the aforementioned Facebook post, and downplaying the severity of the Covid-19 pandemic and being averse to taking proper health precautions like the vaccine.

       A distinct trend that I also found while analyzing the group was a large amount of conspiracy theories regarding Covid-19 and the vaccine. For instance, on a post about a user potentially being terminated from their job due to not taking the Covid-19 vaccine, another user commented about how the government is trying to get all unvaccinated people fired from their jobs so they can "starve" those who do not comply to government as a way to control the population (Borders, November 13). There was also another post that linked to a video titled the "Plannedemic," which details how this was a planned pandemic created by China with the motivation to "make the rich richer and the poor poorer" (Hibbeler Productions). A video such as this one is a form of disinformation. This video spreads a conspiracy theory with the purpose to disinform individuals about the origin of the virus. In the comments of the video, one can find people donating money to the original poster of the video. Perhaps this could be their motivation for spreading such disinformation. In another post where a user is expressing their concern about people being terminated from their jobs if they do not receive the vaccine, a user comments about how the Covid-19 vaccine is a form of population control and within 20 years everyone who took it will die from a deadly disease such as cancer (Teddington, November 13). Posts like this are likely due to misinformation; this person is probably convinced that this outlandish claim is actually true, and the birthplace of the idea can likely be traced back to a fake news or disinformation post, ultimately making this commenter a victim of disinformation. Conspiracy

theories such as this are actually far more prominent than one might imagine. For example, Kant and Varea found strong links between Covid-19 misinformation and the spread of conspiracy theories regarding that topic. They also state the danger of spreading such information over social media when they write "data shows that social media was still able to spread conspiracy theories and conflate mal-information to cast doubts on medical facts of the COVID-19 disease and its origins" (Kant & Varea, 78). This shows that social media such as Facebook has been proven to spread dangerous conspiracy theories and falsely dispute medical information such as taking the vaccine easier than ever before.

Conspiracy theories are not the only distinct type of misinformation you can find in anti-vaccine Facebook groups. For example, one post detailed how if you are mandated to take the vaccine but are still averse to being vaccinated, you can take two aspirin and drink half a cup of lemon juice immediately after you get the vaccine; according to the user, this will "lower your blood pH for a few hours and completely destroys the vaccine in your bloodstream before it can bind with your RNA" (Cebula, November 13). Although it is hard to say for sure, this post seems to be a type of disinformation from someone who is actually in favor of vaccines, and is trying to trick people who are averse to vaccines into taking the Covid-19 immunization. Though this information is false and easily fact-checkable, it still became one of the top featured posts in the group, with six likes and eight shares. Of course, disinformation like this is luckily not dangerous, but it is evidence of a larger issue: many people will believe posts on Facebook with no sources or credibility. For example, many Facebook groups have been documented promoting unusual and potentially dangerous treatments for Covid-19, such as a common medication for horses known as Ivermectin, which has no credibility for helping to treat Covid. This is not a small problem; Davey Alba writes, "a liberal watchdog group found 60 public and private

Facebook groups dedicated to ivermectin discussion, with tens of thousands of members in total"
(Alba). This is direct evidence that dangerous misinformation regarding unusual Covid-19
treatments is quite common, and that anti-vaccine individuals are so against the vaccine they are
willing to try unusual treatments such as horse medication for parasitic worms.

As previously said, the Facebook algorithm tends to promote content that is highly
sensationalized, and content like that is not hard to find within the anti-vaccine group I
examined. One user commented a photo with the text, "if you're forced to put something into
your body then you do not own your body. By definition you are a slave" (Gaglione, November
13). Another user compared mandated mask wearing and vaccines in schools to an "attack on our
children" (Jabami, November 13). This type of sensationalized language is the exact type of
thing that gets promoted by Facebook's algorithm. The Facebook whistleblower Frances Haugen
said "the thing I saw at Facebook over and over again was there were conflicts of interest
between what was good for the public and what was good for Facebook. And Facebook, over
and over again, chose to optimize for its own interests, like making more money" (Pelley). By
increasing the vast spread of misinformation, Facebook continues to focus on their bottom line
and profit over the lives of others.

The last interesting trend I found within my data was the lack of acceptance toward
outside opinions regarding the Covid-19 vaccine. In one post, a user comments on why vaccines
are important, stating the more people who receive vaccines, the more effective they become for
everyone (Pengelly, November 13). This ultimately led the user to be attacked by a few other
users. One commenter said, "Do you believe everything you read?" (Bell, November 13). This is
evidence of a large issue I found within my data. Many of these Facebook groups act as echo
chambers, where users only want to hear and see points that already validate their own opinions

instead of challenging them. Another post I found had a user sharing that they are fully vaccinated but they do not agree with nurses being fired for not having gotten the vaccine. He writes, "If they did have the jab they can still catch it and spread it! Why does it matter that much?" (Phillips, November 13). Although it seems he agrees with the sentiment of the group, users still had a problem with him posting within it solely because he has been vaccinated. One user comments, "I thought this group was for those who won't get the shot" (Stuller, November 13). This resistance towards any outside perspective can create a huge problem within this type of group. One research study found that "social media technologies provide consumers with new opportunities to access diverse content and perspectives from around the world, but at the same time they also facilitate extreme forms of customization that create echo chambers, filter bubbles, and facilitate the spread of misinformation" (Auxier & Vitak, 11). Although the authors understand the positive aspects of social media, they found that it can create echo chambers of information that only increase the transmission of misinformation, such as the Facebook group I analyzed. This creates an even bigger problem since Facebook groups can act as echo chambers that facilitate the dissemination of misinformation, and misinformation comes from a genuine place of misunderstanding. Many of these groups create cycles of misinformation that victimize the users and never allow them to challenge or change their opinions.

After gathering data and analyzing the types of posts within an anti-vaccine Covid-19 group, it is clear misinformation and disinformation are real problems that pervade such groups. It has been shown that many of these people have fallen victim to Facebook's engagement tactics, which actively promote dangerous content. A distinct connection between American politics and the type of users who are against the vaccine also seems to be a common trend within such groups. Hesitancy towards the vaccine also frequently comes from real but very rare

side effects, and the speed at which the vaccine has been developed. Conspiracy theories play a large part in the web of misinformation spread within these groups, as well as fictitious medical advice that is being taken without any credibility. While this large volume of misinformation exists in groups such as the one I analyzed, there is a larger issue at play: these groups create echo chambers of ideas, which creates a rejection of outside perspective mentality on which further studies should focus.

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