

Combined Formative Study Results

Many posts on anti-vaccination groups on social media consist of links to videos, news articles, other posts, etc. that members have shared that are associated with the risks of vaccines. Anti-vaccination supporters use those links to spread awareness of the dangers and risks of vaccines. Pro vaccine supporters on the other hand, share information but also question the validity of the methods and the information present.

Several debates (usually in the form of long comment threads) between pro- and anti-vaccination supporters occur in these anti-vaccination groups. Pro-vaccination supporters would sometimes join these groups, comment on existing posts, or create their own posts to let anti-vaccination supporters know that they're wrong, and the anti-vaccination supporters would fight back. Name-calling and expletives are sometimes used in these debates. Some groups were very selective in that, before one could join, they would have to answer questions like "Do vaccines cause autism" and "Are you for or against vaccines". People were removed from groups if they did not adhere to the mass consensus under the guise of "having a safe space to talk about beliefs".

Research into vaccines by individuals with previously no opinion, or were pro-vaccination, are usually triggered by a change in the family (pregnancy or childbirth) and a desire to make more informed decisions for their family's health. There were some individuals for which the opposite was also true. Minds were changed when they receive some sort of basic scientific research analysis education.

In all (100%, (5/5)) interviewed anti-vaccination supporters, there is a mistrust of conventional doctors and informational sources, including the Centers for Disease Control and Prevention (CDC), with favoured sources including the movie "Vaxxed" and YouTube channel VAXXED TV as well the book *Dissolving Illusions* by Suzanne Humphries. There is skepticism of internet sources, and preference for information with more than one source. Some anti-vaccination supporters used the bible as an argument for anti-vaccination. Many used ingredients as a deterrent; stating that there was use of human fetal tissue, human recombinant DNA and heavy metals such as mercury.

Most pro-vaccination supporters refer to peer reviewed information or science-based information. They get their information from trusted individuals such as doctors for in person consultations and CDC and World Health Organization (WHO) for information on the internet. 60% (3/5) had some sort of medical training and was aware of research protocols. Ingredients lists were not a factor for pro-vaccination individuals.

For pro-vaccination supporters, methodology was just as important as the data, some went as far as offering tips on our questionnaires and telling us we should re-evaluate our questionnaire for it's vagueness, they also did not understand why we did not have a hypothesis we were testing. They didn't believe we were doing "science" in the correct way.