

Miller School Student Wins Grant for Social Media Study on COVID-19 Vaccine Hesitancy and Infertility

Morgan S. Levy, a second-year student in the M.D./M.P.H. program at the University of Miami Miller School of Medicine, won a \$500 grant for her proposal “Will the COVID-19 Vaccine Ruin My Fertility? A Content Analysis and Evidence-Based Twitter Campaign to Tackle Vaccine Hesitancy in Reproductive Age Women.”



Morgan Levy

"It was pretty unexpected and exciting to know I've won," Levy said of the grant, which was awarded from the Association for Healthcare Social Media and Cochrane, a non-profit health care social media organization.

"This was the first full-on research grant I applied for while at the Miller School that dealt with the extensive work of writing and explaining a proposal. It was a somewhat last-minute decision, but it was on a topic I'm passionate about and glad I pursued."

Passions Explored

Levy began her involvement with vaccine education during her gap year before medical school in 2019 as an AmeriCorps member at Zufall Community Health Center, a Federally Qualified Health Center in Northern New Jersey.

She also worked in various facets of health care such as health insurance enrollments, prenatal care, and vaccine initiatives for pediatrics. She noticed that even though newborns received flu vaccinations, many parents didn't mainly due to the inconvenience or lack of information regarding vaccines for adults.

Wanting to increase the rate of flu vaccination in parents at the center to protect themselves and their children, Levy worked with leadership to plan a clinic event where both children and their parents could get vaccinated together in one convenient appointment.

At the event, she ensured that bilingual flyers and personnel were available to educate parents, making knowledge of vaccines accessible. The effort was a success in increasing vaccinated parents as the center took on a simple approach of education and convenience rather than just bombarding with triggering statistics.

"A lot of these issues are rooted in the lack of evidence-

based information and the prevalent spread of misinformation," Levy said. "It's important to meet people where they are and deliver the information in a way that makes them feel safe instead of threatened. There will be people whose minds aren't going to be changed, which you need to recognize and respect. While it was not perfect, I had phones slammed on me when recruiting, the net good of it motivated me to keep going."

While vaccination was a topic close to heart, Levy also had close ties to reproductive health, an interest that began during her college years. The idea of being involved in helping people who couldn't have a family and needed assistance was regarded as beautiful by Levy. She started shadowing in OB-GYN including in reproductive endocrinology and infertility medicine and serves as the medical student chair of the American Medical Women's Association physician fertility initiative.

Through AMWA, Levy contributed to the field by doing analytics for the organization's social media platforms on a national scale.

"I personally started using Twitter in a professional capacity during my gap year before medical school." Levy said. "As the pandemic started, I was using social media daily for news and health information updates regarding the pandemic to stay informed. Summer going into my first year of medical school, I realized how so much health information was being shared on social media and that as an aspiring health care professional, it was important for people to have access to accurate health information on social media."

Combining Interests

The topic of vaccination and infertility mixed well for Levy as she was able to develop a content analysis submission to the Association for Healthcare Social Media and Cochrane Healthcare Social Media Grant.

The winning proposal consisted of six pages outlining the background, rationale and proposed methods to conduct a study tackling misinformation in vaccines and infertility on social media during COVID-19.

While the study is still in the early stages, Levy plans to focus on Twitter for the research analysis due to the high level of misinformation available. She will target various periods within COVID-19 with misinformation spikes from news outlets, misinformed health care professionals, and the general that went viral. She will further see what is being shared and what others are saying with vaccines, such as misinformation about placenta damage, abnormalities and other misinformation.

"A number of studies have shown that COVID infection during pregnancy is a major risk factor for adverse pregnancy outcomes in reproductive age women," Levy said. "While the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine recommend the vaccine for pregnant individuals, and research has shown that the COVID-19 vaccine does not cause sterility in females – many reproductive-age women are still afraid to get vaccinated. Recent data shows that only 23% of pregnant women are vaccinated against COVID. This is a major public health issue that has implications for millions of women who need to make

informed decisions for the safety of themselves and their families."

Levy's next steps in the study involve analyzing the various tweets to translate the analysis into educational, social media campaigns with her mentor, Torie Comeaux Plowden, M.D., M.P.H., who is a reproductive endocrinology and infertility physician.

Upon analyzing existing posts, they plan to survey those who view the campaign on social media to learn if they have received the COVID-19 vaccine, along with what concerns the individual may still have.

"I came into medical school knowing I was doing an M.D./M.P.H. degree as a tool for data driven advocacy," Levy said. "It's interesting seeing the two fields merge and applying what's being taught in my coursework. This all goes back to the beginning of what it means to use data as a tool to drive communication as a health care provider, and advocate for the well-being of your patients in a way that all fits together."

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