Psychosocial Determinants of COVID-19 Vaccine Hesitancy and the Mediating Role of Various Attitudes Towards Science

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May 12, 2023

Abstract

Even as the pandemic wanes in public interest, understanding vaccine hesitancy remains critically important. This study examined how attitudes towards science mediate the relationship between COVID-19 vaccine hesitancy and prominent psychosocial predictors: political ideology, religiosity, reactance proneness, dogmatism, perceived ostracism, and precarity. We analyzed the structure of people's attitudes towards science, revealing four factors: belief that science is objective, belief that science and technology are beneficial, trust in science in general, and trust in medical science. With these as mediators in a saturated path analysis, low trust in medical science and lacking belief that science is objective fully mediated the relationships between nearly all predictors and COVID-19 vaccine hesitancy. Political conservativism's negative association with vaccine hesitancy was partially mediated by the same two factors. Trust in science in general was not a significant mediator once all four facets were included in the model. These findings are discussed with a focus on their implications for understanding attitudes towards science and their complex role in COVID-19 vaccine hesitancy.

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