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Relationship between social capital, social norms, and university students' reluctance to receive a second dose of the COVID-19 vaccination in Japan and Bangladesh

Herd immunity against COVID-19 needs to achieve high coverage by vaccines, but still, there is hesitance for second doses, particularly among university students. These individuals are at increased risk of transmission and have a low uptake in full vaccination because they tend to live in overcrowded situations. Earlier research has been based on individual factors (e.g. confidence, convenience) according to the 5C model, while this study looks at social influences-social norms and social capital-on culturally cohesive societies. These two countries, despite their vast economic differences (GDP: \$32,859 vs. \$2,773 per capita), have similar vaccination rates (81.9% vs. 74.6%) and thus suggest that tightness of culture (strong social norms and cohesion) drives compliance. This study aims to investigate how these identify social factors associated with second-dose hesitance among students in both countries.

The cross-sectional study enrolled 600 undergraduates (300 from both Japan and Bangladesh) who had taken at least one dose of the vaccine. For the purposes of this study, data were collected using structured questionnaires designed to capture vaccination reluctance (outcome: intent to delay or refuse the second dose), perceived descriptive norms (beliefs about colleagues' vaccination behaviors), injunctive norms (remembered and perceived approval for vaccination), and social capital (trust, community ties, mutual aid). Other covariates include age and gender, access to health care, and prior COVID-19 infection. Thus, multivariate logistic regression was used for the analysis of associations, adjusting for confounders.

Descriptive norms would significantly reduce the hesitancy: students believing “many,” “almost all,” or “everyone” vaccinated had a 40–60% lower chance of reluctance (AOR = 0.60, 0.50, 0.40, $p < 0.001$). Also, there were strong injunctive norms (perceived approval of vaccination by peers) to lower the hesitance (AOR = 0.75, $p < 0.001$). All components of social capital, namely, social trust (AOR = 0.80), social ties (AOR = 0.85), and mutual aid (AOR = 0.90), were protective; healthcare access indeed reduced hesitance (AOR = 0.60), while a previous infection amplified it (AOR = 1.30). After adjustment, differences between countries were negligible ($p = 0.50$), reiterating the impact that cultural tightness takes over economic factors.

This means that the social norms and social capital that define the cultures have been critical to both increasing and buffering individuals against vaccine hesitancy in collectivist cultures. The findings are in line with theories by which tightly knit societies leverage peer influence and community trust to achieve collective action. While both nations had similar hesitancy patterns after adjustment despite Japan's superior healthcare and GDP, it shows that cultural cohesion transcends different economic status. Public health strategies should prioritize campaigns amplifying peer vaccination behaviors and reinforcing community trust. Limitations included cross-sectional design and self-report bias. Future studies should focus on causal mechanisms and the applicability of findings to various settings. In closing, fighting hesitation must rely on social dynamics, especially in cohesive communities, to improve vaccine uptake and resilience against the pandemic.

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