

Project Title

Perception and Attitudes of Older Adults Towards COVID-19 Vaccination and Community Measures: A Cross-Sectional Survey Based On the Theoretical Domain Framework

Project Lead and Members

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Organisation(s) Involved

Geriatric Education & Research Institute

Healthcare Family Group(s) Involved in this Project

Allied Health, Medical

Project Period

Start date: 1st Dec 2021

Completed date: In progress

Aims

To use the Theoretical Domain Framework (TDF) to understand the effects of different conceptions older adults have on the overall support in Singapore's vaccination program.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

1. It was difficult reaching out to those who were unvaccinated, at times due to the sensitivity of the topic. Perhaps an online survey conveniently sent to a wider group of participants, instead of an interviewer administered questionnaire, could have helped in increasing the participation rate of the unvaccinated.
2. The survey was carried out during working hours on weekdays, hence the perspectives of working older adults were not captured. In hindsight, it is important to include their perspectives as this group tend to move around more and hence are more vulnerable to COVID-19 compared to those who stay at home most of the time.
3. We might have missed recruiting frail older adults due to the practical constraints of data collection.
4. We find it useful to incorporate some open-ended questions into the quantitative survey to capture some reasoning for the responses provided.

Conclusion

See poster appended/ below

Additional Information

Singapore Health & Biomedical Congress (SHBC) 2022: COVID-19: Our response to a new challenge (Oral category) – (Merit Award)

Project Category

Care Continuum

Population Health

Community Health

Keywords

COVID-19, Vaccine Acceptance, Vaccine Hesitancy, Theoretical Domain Framework

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Perception and attitudes of older adults towards COVID-19 vaccination and community measures: A cross-sectional survey based on the Theoretical Domain Framework

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INTRODUCTION: When COVID-19 vaccines became available in Singapore at the beginning of 2021, the uptake of these vaccines were initially hindered by vaccine hesitancy, especially among older adults, who were more vulnerable to the severe consequences of COVID-19 infection.

The hesitancy against COVID-19 vaccines also threatens the effectiveness of Singapore's vaccination program, since a critical mass of the population needs to be vaccinated for herd immunity to be achieved.

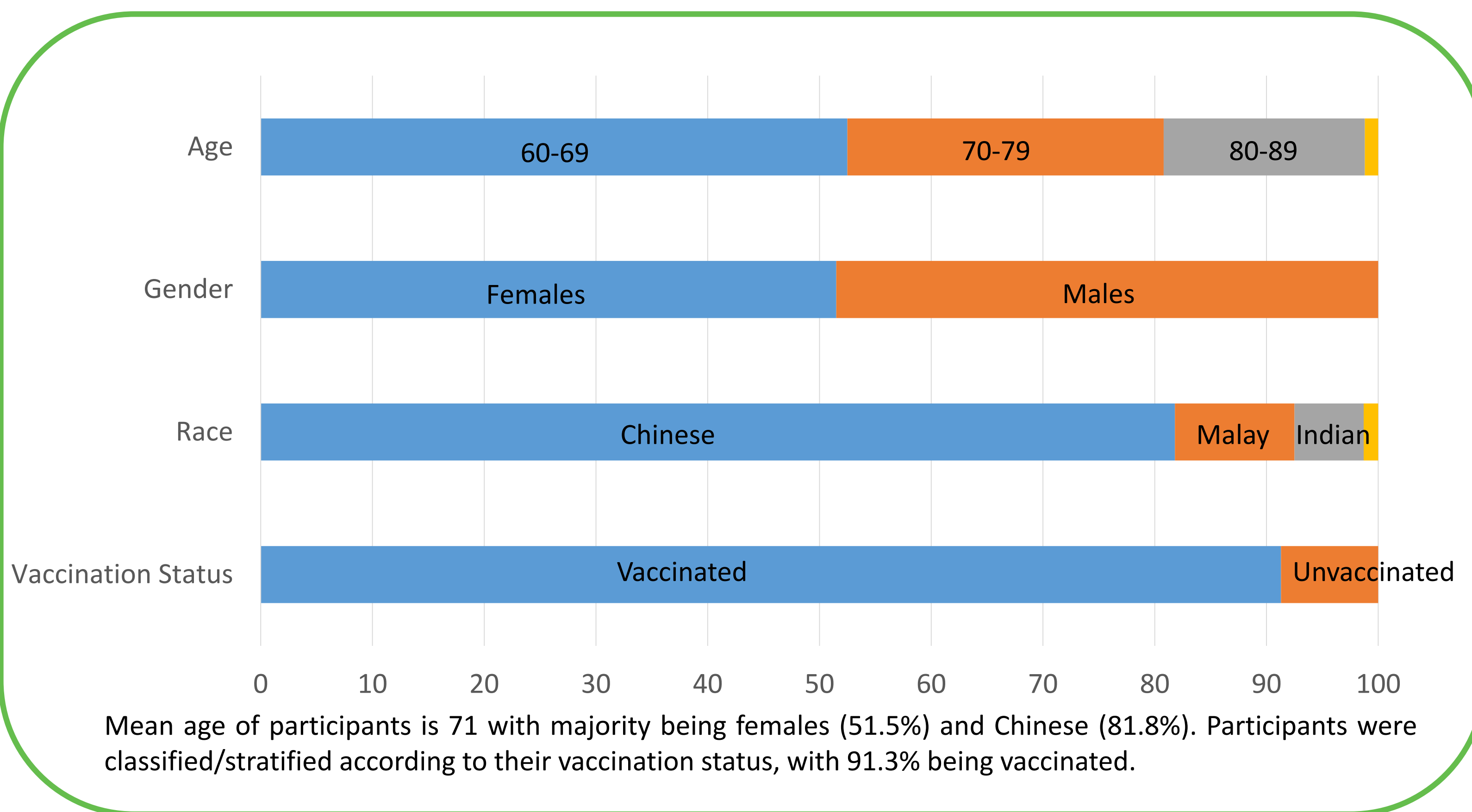
An individual's decision to vaccinate or not is often complex and influenced by a multitude of factors such as their individual beliefs and experience, their social network, social media, as well as local vaccine policies.

AIM: To use the Theoretical Domain Framework (TDF) to understand the effects of different conceptions older adults have on the overall support in Singapore's vaccination program.

METHOD: A door-to-door survey was administered to a representative sample of 600 older adults (defined here as 60 and above) using stratified random sampling between March-May 2022.

Participants were asked questions relating to their: (a) thoughts on vaccinating against COVID-19, (b) perception on the efficacy and safety of the vaccines, (c) perception of potential benefits of a high vaccination rate, (d) accessing and understanding information relating to COVID-19, (e) stress level, and (f) trust in information sources.

RESULTS



Overall Vaccination Support	Model β (95% CI)	p
Trust (Information Sources)		
Family	0.017 (-0.033, 0.066)	0.509
Friends	-0.061 (-0.111, -0.01)	0.018
Government	0.078 (0.015, 0.141)	0.015
Social Media	0.035 (-0.005, 0.075)	0.088
Scientific Community	0.001 (-0.05, 0.052)	0.962
Medical Community	0.032 (-0.032, 0.096)	0.329
Pharmaceutical Companies	-0.035 (-0.083, 0.013)	0.156

KEY FINDINGS 1

Trust in Government a significant predictor of overall vaccination support whereas trust in friends a negative predictor.

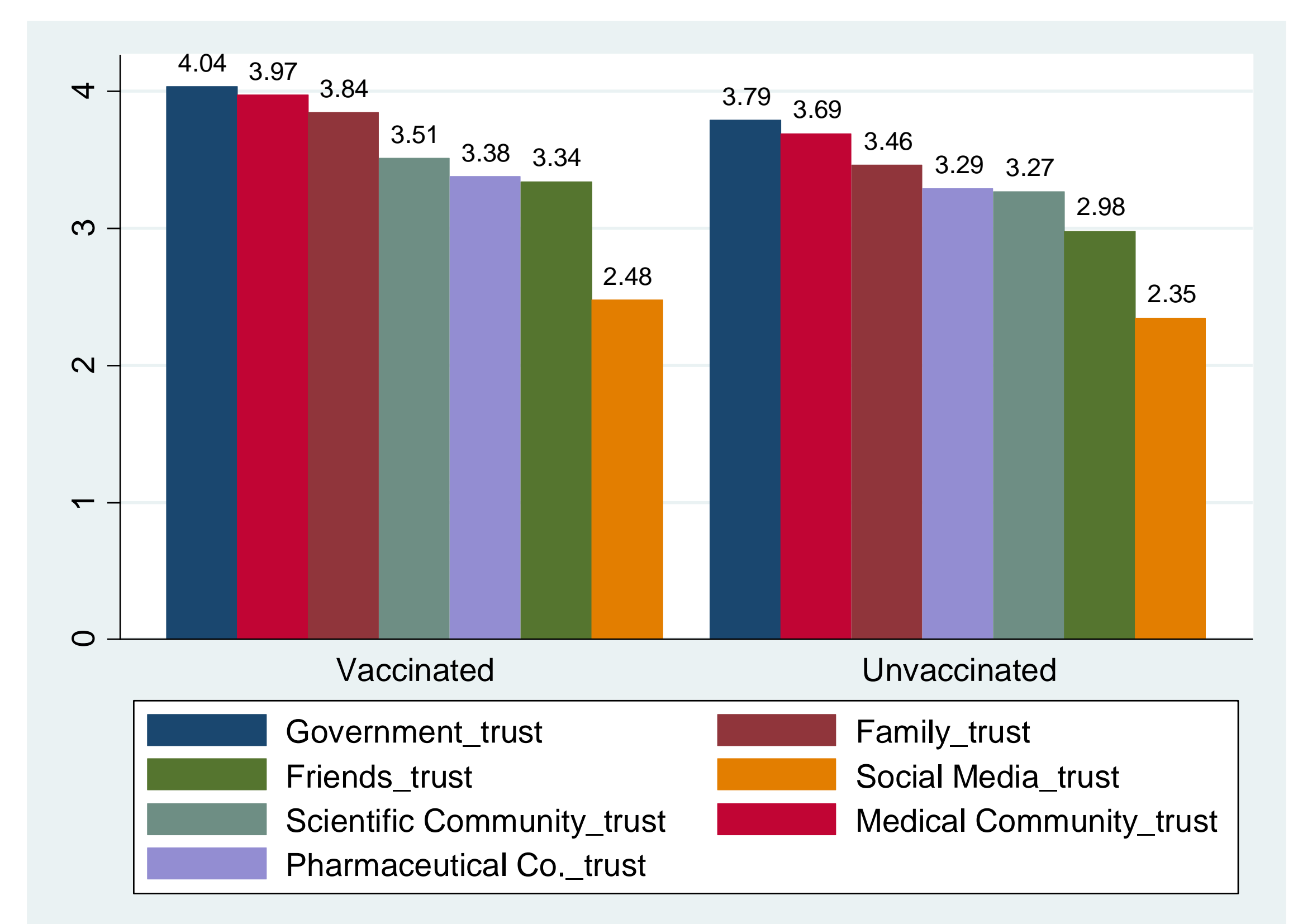
Overall Vaccination Support	Model β (95% CI)	p
TDF Domains		
1 Beliefs About Consequences	0.111 (0.031, 0.192)	0.007
2 Optimism	0.115 (0.033, 0.197)	0.006
3 Beliefs About Capabilities	0.242 (0.158, 0.326)	<0.001
4 Goals	0.36 (0.269, 0.452)	<0.001
5 Knowledge on Vaccine Safety	0.021 (-0.031, 0.072)	0.433
6 Skills	0.021 (-0.043, 0.085)	0.521
7 Emotions	-0.017 (-0.054, 0.019)	0.343

KEY FINDINGS 2

Results showed that four of the seven TDF domains covered in the survey were significant predictors of a composite measure of overall support in Singapore's vaccination programme. The four domains were: (1) Beliefs About Consequences [of vaccination], (2) Optimism [of the future], (3) Beliefs About Capabilities [of resisting COVID-19], (4) Goals [of a high vaccination rate].

GLOSSARY

- Beliefs About Consequences:** Refers to the importance of getting vaccinated given the personal benefits that come with it.
- Optimism:** Confidence placed towards vaccination in offering protection despite not having full certainty about the effects.
- Beliefs About Capabilities:** If participants accepted the reality on limits to their competencies in resisting the infectiousness and threats posed by COVID-19, and hence believe in the importance of vaccination.
- Goals:** The community benefits that come with the goals of high vaccination rate.
- Knowledge on Vaccine Safety:** Awareness of vaccine information.
- Skills:** Accessing and evaluating vaccine information.
- Emotions:** Stress level of participants.



KEY FINDINGS 3

Significant differences in trust were found between vaccinated and unvaccinated. Specifically, those vaccinated were more likely to trust the government, medical community, their family and friends, and the scientific community.

DISCUSSION & CONCLUSION

- Trust in the government predicted overall vaccination support, thus further research could examine the causes of the trust & ensure that this is maintained.
- Four out of seven TDF domains were predictors of overall vaccination support, indicating areas to focus on for future attempts at garnering support for vaccination programs. Examples include highlighting to older adults their vulnerability to the disease, and the benefits both to themselves and the community if they are vaccinated.

- Unvaccinated individuals seemed less trusting in general, with significant differences observed when it comes to trusting the government, those around them, as well as the medical and scientific community. Future research here may involve interviews to understand the source of their mistrust, so that these sources can be addressed in the future.

LIMITATIONS

- Those who are eager to share are more likely to participate in door-to-door survey, hence may be overrepresented.
- Perspectives of older adults in non-residential areas (i.e. nursing homes) and working older adults were not captured.
- Perspectives of those who are cognitively impaired or frail were not captured due to practical constraints in data collection.