

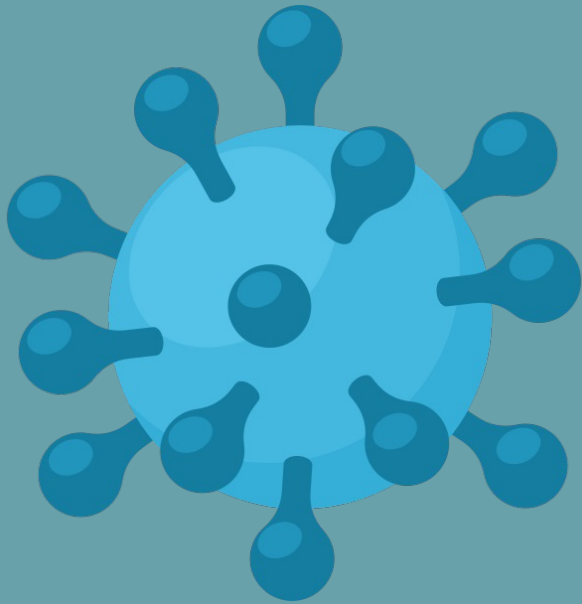
Differing opinions: Understanding university students' attitudes and beliefs about COVID-19 vaccines



THE UNIVERSITY
OF BRITISH COLUMBIA

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Background



- March 2020:
 - Pandemic declared
 - Precautionary measures:
 - Masks
 - Lockdowns
 - Social Distancing
- February 2021:
 - Vaccines widely available
- Polarization of public opinion about COVID-19 and its vaccines

Importance of COVID-19 Vaccination



- High vaccine refusal rates correlated with increase in vaccine preventable diseases
- High vaccine rate ensures:
 - Herd immunity protects those unable to get vaccinated
 - Slower transmission of virus
 - Fewer variants of virus due to decreased mutations
 - Eradication of disease

Vaccine Polarization & Protests

- Vaccine mandate protests:
 - as recent as Jan 2022 (Kelowna)
- Vaccine Conspiracy theories:
 - “New” vaccine technology



Reasons for Polarization

- Concerns about side effects¹
- Vaccine conspiracy theories²
- Social media & misinformation³
- Political orientation²

¹Robertson et al., 2021; ²Freeman et al., 2020. ³Iyengar & Massey, 2019.

Methods

Differing opinions: COVID-19 attitudes and beliefs study

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graph TD; A[Differing opinions: COVID-19 attitudes and beliefs study] --> B[UBCO Students]; A --> C[Central Okanagan];
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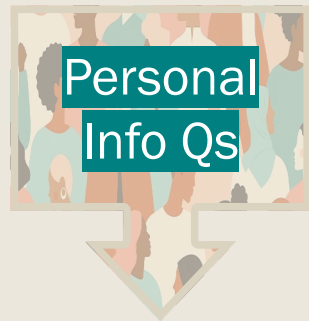
UBCO Students

- 864 UBCO students
- Recruitment:
 - SONA
 - Posters
 - UBCO Social media pages:
 - Reddit, Instagram, Facebook, Discord
- Survey open: October - December 2021

Central Okanagan

Measures

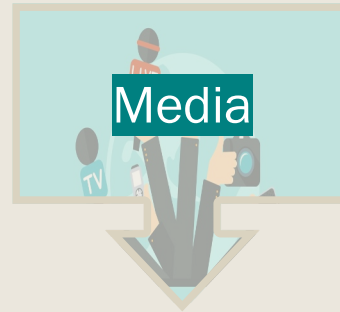
- Compiled measures from previous studies



- General demographics
- Vaccination status
- Reason for receiving vaccination



- Political orientation self-report
- Social and Economic Conservatism Scale¹



- Information Consumption²
- Social Media Use Integration³
- Perceived Social Media Accuracy²



- Scientific Knowledge⁴
- Belief in Science⁵
- Trust in Scientists as Source of COVID info²



- Conspiracy Mentality (OCEANS M)⁶

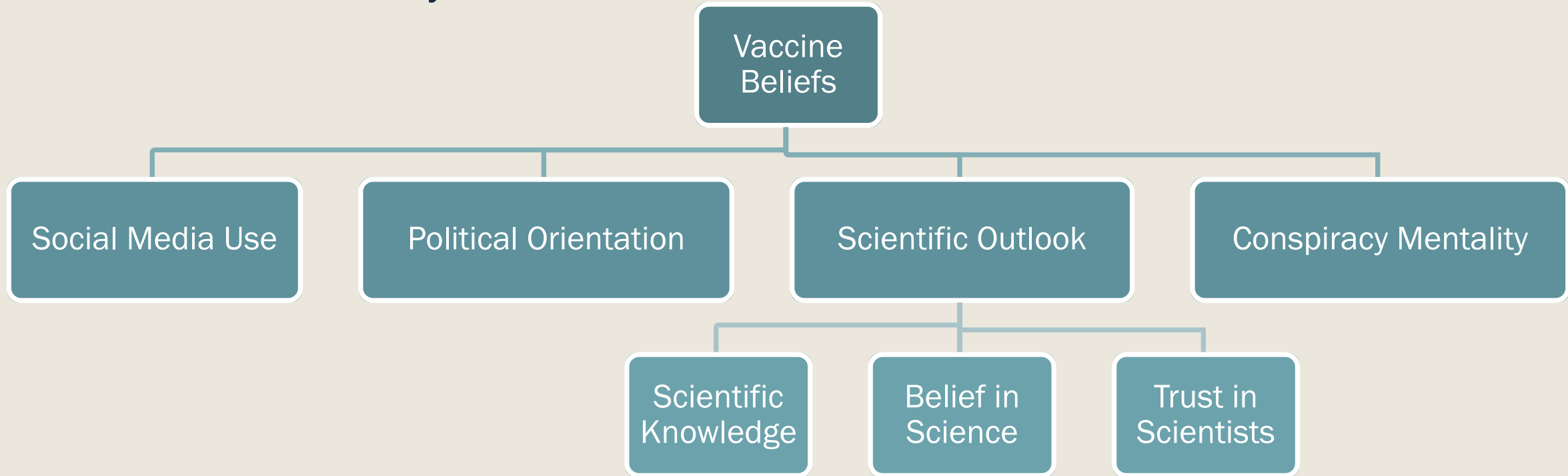


- Vaccine Beliefs (OCEANS B)⁷

¹Everett, 2013; ²Kleitman, 2016; ³Jenkins-Guarnieri et al., 2013; ⁴NSB, 2016; ⁵Farias et al., 2013; ⁶Bruder et al., 2013. ⁷Freeman et al., 2020.

Analyses

■ Correlational Analyses:



■ Hierarchical Multiple Regression:

- DV = Vaccine Beliefs (OCEANS B)
- Predictors = 1) SM Use, 2) Political orientation, 3) Scientific Outlook, 4) Conspiracy Mentality

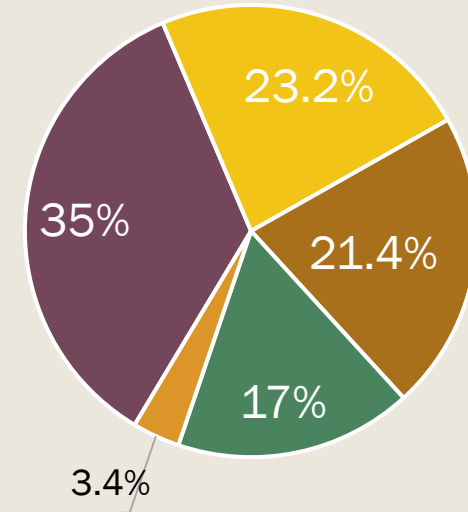
RESULTS

Demographics

- Average age = 20
- Female (67%)
- Ethnicity:
 - White (59.4%)
 - South Asian (14.9%)
 - Southeast Asian (14.9%)
 - Other (11.1%)

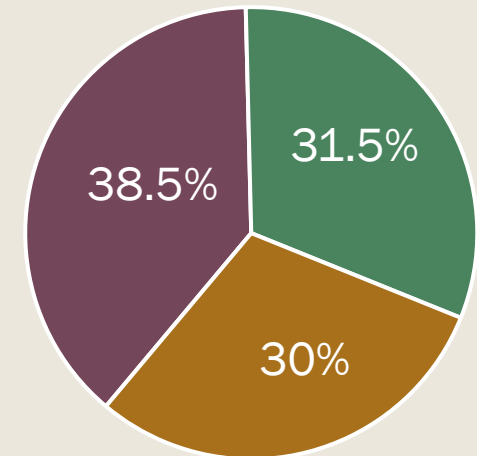
Year of Study

- 1st Year
- 2nd Year
- 3rd Year
- 4th Year
- 5th Year or more



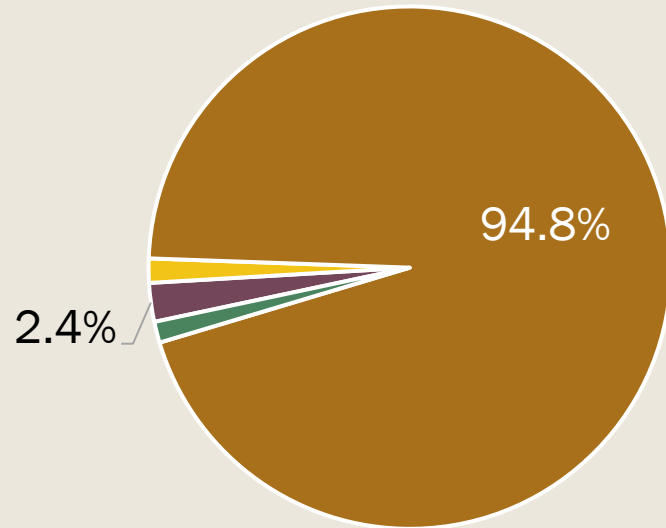
Program of Study

- Arts, Social Sciences, Creative and Critical Studies
- Science
- Applied Programs (Engineering, Management, Health, Education)



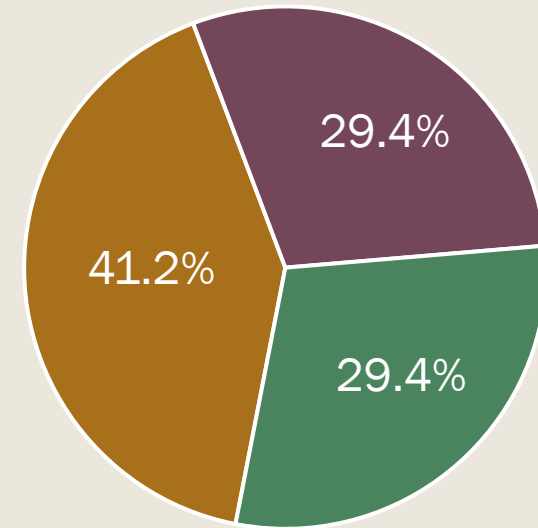
COVID-19 Vaccine Status

■ Vaccination Status



■ Unvaccinated ■ Partially ■ Fully ■ No answer

■ Intention to get fully vaccinated



■ Yes ■ No ■ Unsure

Results:

Vaccine Beliefs (OCEANS B)

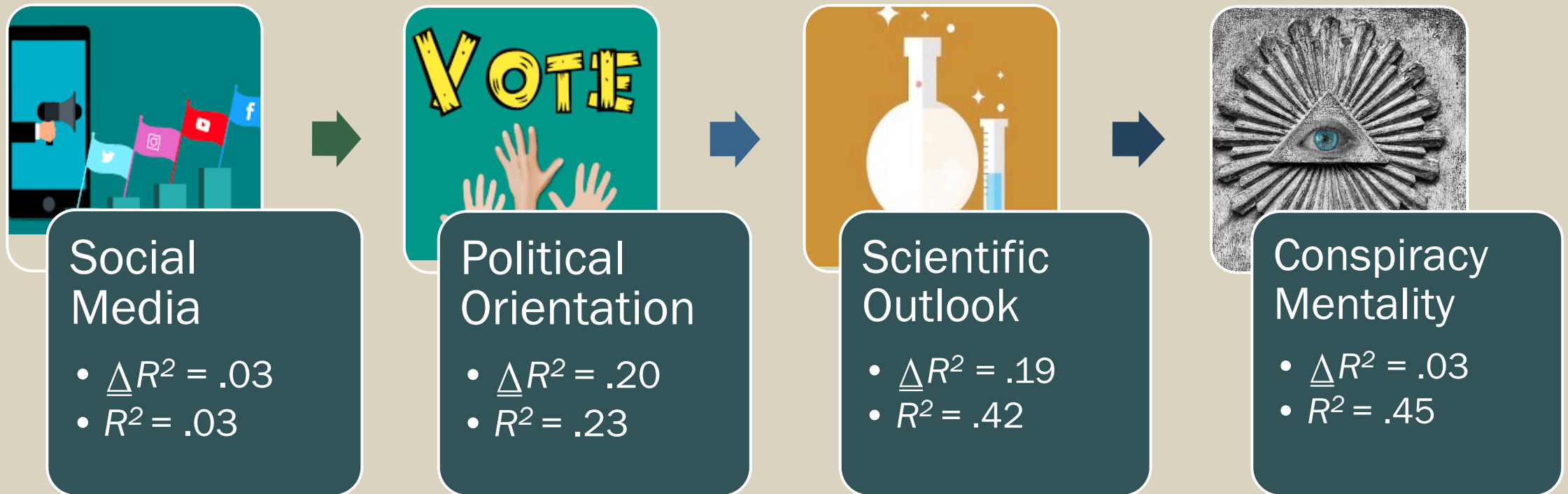
- OCEANS B: $M = 8.97$, $SD = 3.73$
 - Higher score = More uncertainty about COVID vaccines

	OCEANS B
Perceived SM news accuracy	.12**
Political (self-report; higher score = more liberal)	-.41**
Trust in Scientists for COVID info	-.54**
Belief in Science	-.30**
General conspiracy thinking (OCEANS M)	.31**

Note ** $p < .001$

Hierarchical Multiple Regression

Vaccine Beliefs: OCEANS B



Full model $R^2 = .45$, $F(10, 717) = 59.44$, $p < .001$

Importance

A hand holding a syringe with a light blue background and a faint circular pattern. The syringe is positioned vertically, with the needle pointing upwards. The hand is holding the syringe from the bottom, with the thumb and index finger visible. The syringe has markings for 0.5, 1, and 1.5. The background is a light blue gradient with a faint circular pattern.

Current and
relevant
research

Considered
interplay
between
various factors

Results can
help pandemic
planning

Understanding
that scientific
outlook is
intertwined with
other factors

Limitations

- Social Desirability Bias
- UBCO Sample:
 - Students may have different views
 - Younger: Difference in media literacy
 - Higher vaccination rate
- Data collection:
 - before and during Omicron
- Pandemic - constantly changing:
 - New variants
 - Peaks and crests: Viral peaks different during data collection vs. analysis

Future Directions

- Structural Equation Modelling/Path Analysis
- Analysis of our community data
- Considering samples from different regions
 - Differences in health mandates
- As scientific outlook and media are associated with vaccine beliefs:
Studying ways to improve scientific and media literacy



THANK YOU!

Questions?

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