

**A national longitudinal study of Muslim diversity and flourishing in Aotearoa New Zealand:
A quantitative study protocol**

Usman Afzali¹, Jamila Badis¹, Parus Khoso², Gul e Aqsa³, Farah Shawkat¹, Fatima Junaid⁴,
Hussain Raissi⁵, Hala Burhoum¹, Tuba Azeem⁶, Iman Husain¹, Zarqa Shaheen Ali⁷, Zahra
Haidary¹, Nasratullah Hamid⁸, Zahra Emamzadeh⁹, Rizwan Sulehry¹⁰, Somia Tasneem¹, Aarif
Rasheed¹¹, Kumar Yogeeswaran¹, Chris G. Sibley¹², and Joseph A. Bulbulia^{13,14}

¹School of Psychology, Speech and Hearing, University of Canterbury

²College of Education, University of Canterbury

³School of Health Sciences, University of Canterbury

⁴School of Management, Massey University

⁵School of Social Science, University of Otago

⁶School of ABC, Victoria University of Wellington

⁷ICL Business School, New Zealand Skills and Education College

⁸School of Psychological Medicine, University of Otago

⁹TBA, Ministry of Education

¹⁰School of Management, Victoria University of Wellington





















¹¹Just Community

¹²School of Psychology, University of Auckland

¹³School of Psychology, Victoria University of Wellington

¹⁴Department of Linguistic and Cultural Evolution, Max Planck Institute for Evolutionary
Anthropology

Author Note

Usman Afzali  <https://orcid.org/0000-0001-5119-9388>
Jamila Badis  <https://orcid.org/0009-0005-2866-5033>
Parus Khoso  <https://orcid.org/0000-0001-6384-038X>
Gul e Aqsa  <https://orcid.org/0009-0003-0928-8039>
Farah Shawkat  <https://orcid.org/0000-0000-0000-0001>
Fatima Junaid  <https://orcid.org/0000-0002-6656-8120>
Hussain Raissi  <https://orcid.org/0000-0000-0000-0001>
Hala Burhoum  <https://orcid.org/0000-0000-0000-0001>
Tuba Azeem  <https://orcid.org/0000-0000-0000-0001>
Iman Husain  <https://orcid.org/0000-0003-4032-4387>
Zarqa Shaheen Ali  <https://orcid.org/0000-0002-7145-5788>
Zahra Haidary  <https://orcid.org/0009-0000-5259-622X>
Nasratullah Hamid  <https://orcid.org/0009-0002-0120-7428>
Zahra Emamzadeh  <https://orcid.org/0009-0000-0000-0001>
Rizwan Sulehry  <https://orcid.org/0000-0002-1209-0635>
Somia Tasneem  <https://orcid.org/0000-0001-5471-6934>
Aarif Rasheed  <https://orcid.org/0000-0000-0000-0001>
Kumar Yogeeswaran  <https://orcid.org/0000-0002-1978-5077>
Chris G. Sibley  <https://orcid.org/0000-0002-4064-8800>
Joseph A. Bulbulia  <https://orcid.org/0000-0002-5861-2056>

Correspondence concerning this article should be addressed to Usman Afzali, School of Psychology, Speech and Hearing, University of Canterbury, 20 Kirkwood Ave, Christchurch, Canterbury 8041, New Zealand, Email: usman.afzali@canterbury.ac.nz

Abstract

The New Zealand Attitudes and Values Study is a longitudinal study of social values and attitudes of New Zealanders that has started in 2009 and collected data from thousands of subjects so far. Within the realm of this study, negative attitudes towards minority groups, such as discrimination and prejudice have been examined. Given that the Muslim community has recently been subjected to a terrorist attack in Christchurch, we decided to use data from the New Zealand Attitudes and Values Study to look into Islamophobia from the Muslims' perspective, as well as the remarkable resilience of Muslims despite many challenges. In addition, we deemed necessary to investigate the overall wellbeing and flourishing of Muslims, and whether values, identity, religiosity, and meaning-making affect how Muslims perceive themselves. However, we were limited by the sample size of Muslims within the New Zealand Attitudes and Values Study to make such inferences. Therefore, the current project was designed to boost the sample of Muslims within the New Zealand Attitudes and Values Study in a three year quantitative longitudinal study. This protocol describes our pilot community consultation, the decisions made and modified based on consultation, community engagement, data collection, team, measures, timeline, and proposed analyses during the first year of the booster. We also address the overall nuances in terms of perceived enablers and challengers of data collection from a culturally distinct minority religious community. We think that this protocol will be useful to researchers who want to work with Muslims and similar communities in New Zealand and globally.

Keywords: Muslim, Islam, religion, diversity, discrimination, flourishing, meaning-making, identity

**A national longitudinal study of Muslim diversity and flourishing in Aotearoa New Zealand:
A quantitative study protocol**

Introduction

The devastating far-right extremist attack on two mosques in Christchurch that killed 51 and injured another 49 Muslims (REF), albeit shocking to the world (REF) and unprecedented in New Zealand (REF), was not as surprising to the Muslim community and their leadership (REF) due to the widespread experience of Islamophobia and prejudice (REF). With overseas reports showing increased Islamophobia following these attacks (REF), we have reasons to see an array of hope in New Zealand due to reports of recent improved attitudes towards Muslims (REF). Most New Zealand research in this area so far has shed light on such attitudes from a non-Muslim perspective. In other words, we reported on how Muslims are perceived, and not how Muslims perceive themselves. While such reports are an absolute necessity, one can never underestimate the self-experience of Muslims themselves - the direct victims of this heinous crime.

1. Far right terrorism and attitudes toward Muslims (Usman)
2. Other research on Muslim wellbeing (Dr Fatima)
3. Other ongoing projects: Qual (Farah); and Islamophobia scale to verify our previous findings (Jamila).

The New Zealand Attitudes and Values Study (NZAVS) is a large longitudinal national probability annual panel study of social attitudes, personality, ideology and health outcomes that began in 2009 and has collected data from more than 70,000 subjects so far. NZAVS has been instrumental in exploring minority issues, including but not limited to discrimination, intergroup relations, identity, security, and etc. In this pursuit, NZAVS has also explored perception of Muslims and the mechanisms of attitudinal changes towards Muslims following 15 March 2019 Christchurch terrorist attacks. However, much of the NZAVS work to date with the Muslim community has focused on conveying information about how Muslims are perceived. After receiving strong positive signals from the Muslim community to scientifically explore diversity,

discrimination, self-perception, resilience, meaning-making, and flourishing; this longitudinal study was conceived to address such a worthwhile scientific need. This protocol addresses our pilot community consultation, the decisions made and modified based on consultation, community engagement, data collection, team, and measures. The study primarily aims to explore the diversity of Muslims in New Zealand, assess Muslims' perceived discrimination in comparison with other groups, unearth predictors of flourishing and meaning-making, and measure the effect of service-attendance and religious-identification on these constructs.

Introduce the context of the study, emphasizing the need to understand the psychological impact of mass trauma events on diverse populations such as the Christchurch Muslim community. Highlight the significance of longitudinal research in assessing long-term mental health outcomes. Bulbulia et al. ([2022](#))

Background

- Provide a brief overview of the Christchurch mosque attacks and their aftermath.
- Discuss existing literature on the psychological effects of mass trauma events, particularly on diverse cultural groups.
- Outline the gaps in current knowledge regarding the long-term psychological effects of such events on the Muslim community.

Research Aims

- Clearly state the research questions and objectives of the longitudinal study.
- Emphasize the importance of assessing psychological outcomes over time to understand the trajectory of mental health in the affected population.

Hypotheses

Given that the present project functions as a booster for NZAVS and uses the same questionnaires, the questions that can be answered by MDS can be limitless, and one could suggest a large number of hypotheses to be tested and questions that can be answered from these data in

the years to come. However, immediately we are trying to test the following hypotheses – within the span of MDS:

Hypothesis 1: Muslims with the strongest ties to their community as measured by service attendance and prayer are buffered most from anti-Muslim prejudice.

Hypothesis 2: Muslims experience greater challenges to employment and health than matched members of other religious groups.

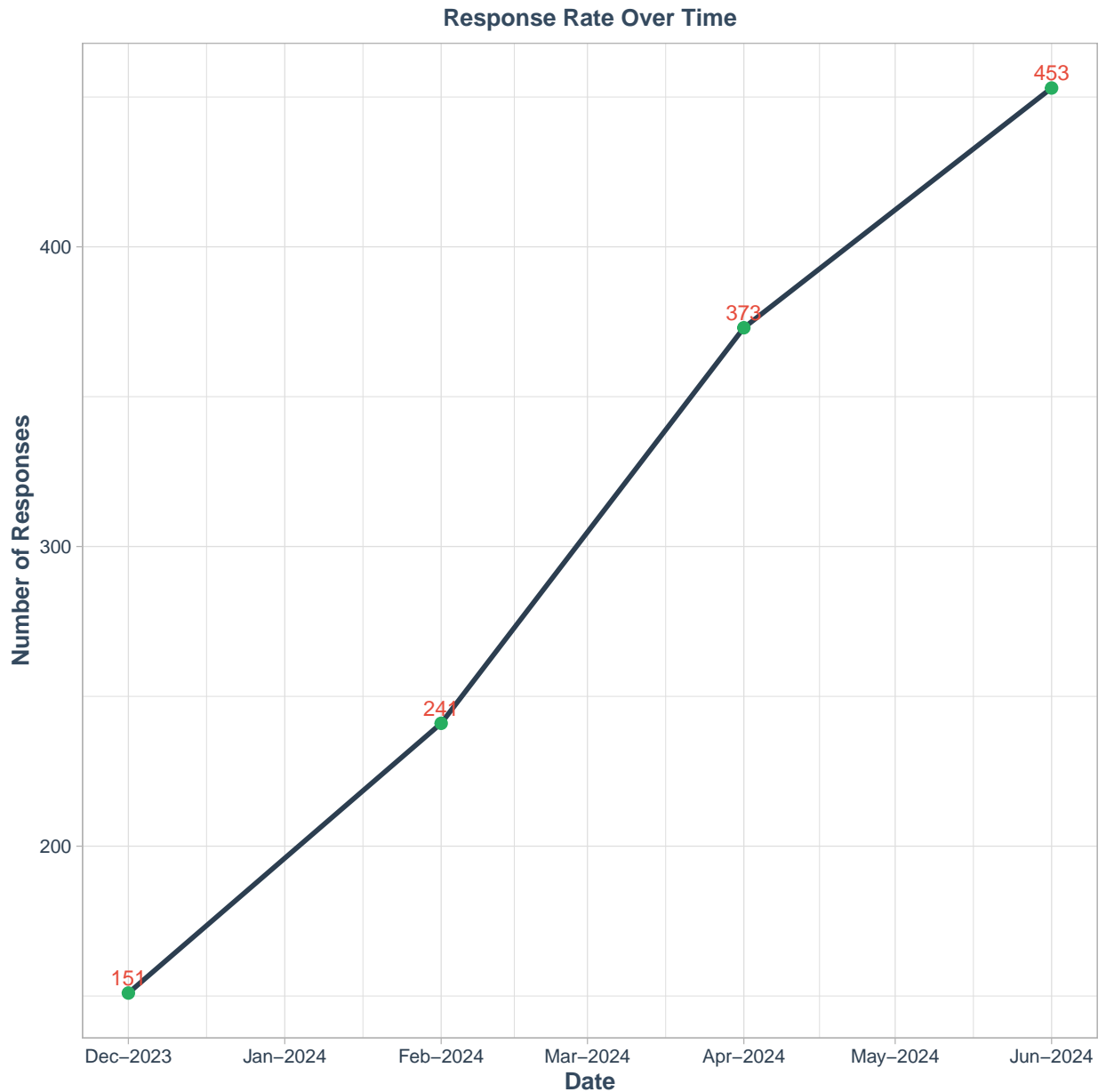
Hypothesis 3: Subjective well-being, the meaning of life, and psychological distress are similar among Muslims and matched members of religious groups from the buffering of religious community-making.

Having sensed interest in these data from researchers in New Zealand and overseas, it maybe possible to immediately test other hypotheses within the realm of MDS, that would be published as independent research articles.

Methods

- **Study Design:** Describe the longitudinal design of the study, including the planned follow-up periods.
- **Participant Selection:** Define the inclusion criteria for participants, specifying age, residency, and other relevant factors.
- **Recruitment:** Detail the recruitment strategy, including outreach methods and sources of recruitment.
- **Data Collection:** Explain the quantitative measures to be used in data collection, including validated self-report instruments and clinical assessments.

Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
i Please use `linewidth` instead.



- **Procedure:** Outline the procedure for data collection at each time point, whether face-to-face or virtual.

1. Community consultation in 2022: Aqsa and Parus
2. Current Wave general procedure: Usman and Jamila with input from all RA's: Farah, Hussain, Hala, Zarqa, Zahra H, Nasrat

- **Ethical Considerations:** Discuss ethical approval obtained for the study and procedures for

obtaining informed consent from participants.

- **Data Analysis:** Provide an overview of the planned data analysis methods, including statistical techniques for longitudinal data analysis.

Expected Outcomes

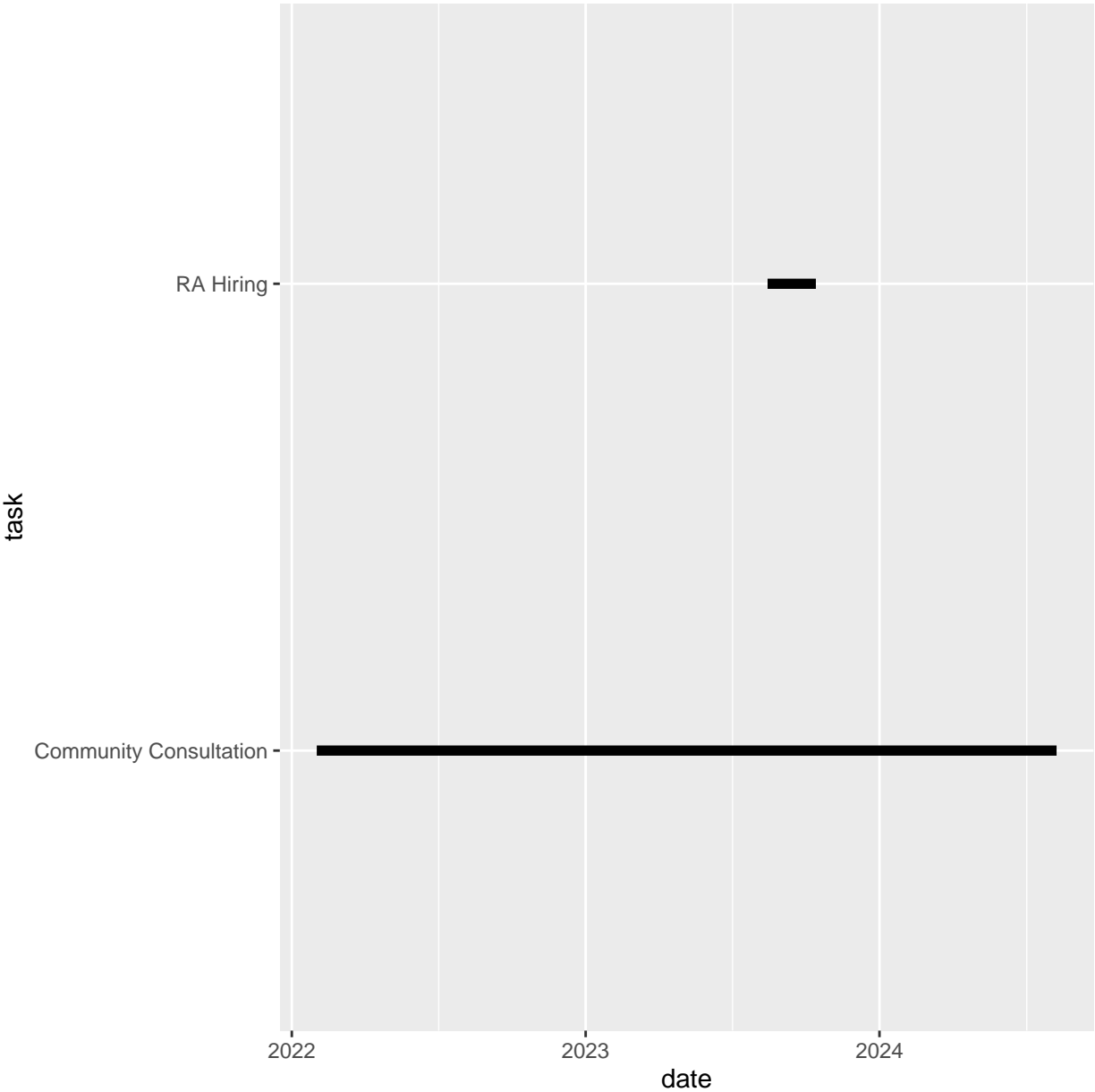
- Anticipated findings based on the research questions and objectives.
- Potential contributions of the study to the field of mental health research and implications for policy and practice.

Timeline

- Present a timeline indicating key milestones in the study, including recruitment periods, data collection waves, and analysis phases.

1. Usman and Jamila

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.4      v readr      2.1.5
v forcats    1.0.0      v stringr    1.5.1
v lubridate  1.9.3      v tibble     3.2.1
v purrr      1.0.2      v tidyr      1.3.1
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to
```

Strengths and Limitations

- 1. Zahra E, Rizwan, Somia

Conclusion

Summarize the importance of the longitudinal study in understanding the psychological effects of the Christchurch mosque attacks on the Muslim community and reiterate the significance of the research aims.

1. Zahra E, Rizwan, Somia

Ethics

Funding

A National Longitudinal Study of Muslim Diversity and Flourishing (famously known as Muslim Diversity Study) is supported by a grant from the Templeton Religion Trust (TRT-2022-30579). The funders had no role in preparing the manuscript or the decision to publish it.

Data Availability

The data described in this study are part of the Muslim Diversity Study, that is conducted under the [New Zealand Attitudes and Values Study](#).

CoI

We have no conflict of interest to disclose.

References

Bulbulia, J., Afzali, M. U., Yogeeswaran, K., & Sibley, C. G. (2022). *Long-term causal effects of far-right terrorism in new zealand*. <https://doi.org/10.31234/osf.io/8tfxm>

Acknowledgements

W. Joel Schneider for the [Quarto template](#).

CRedit Taxonomy Statement

M. Usman Afzali: Conceptualization, Methodology, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project Administration, Funding Acquisition. **Jamila Badis:** Data Curation, Project Administration, Writing - Original Draft, Writing - Review & Editing. **Parus Khoso:** Formal analysis, Data Curation, Writing - Original Draft (Pilot Community Consultation), Writing - Review & Editing. **Gul e Aqsa:** Formal analysis, Data Curation, Writing - Original Draft (Pilot Community Consultation), Writing - Review & Editing. **Farah Shawkat:** Data Curation, Writing - Original Draft (Other Related Work), Writing - Review & Editing. **Fatima Junaid:** Writing - Original Draft (Introduction), Writing - Review & Editing. **Hussain Raissi:** Writing - Original Draft (Method), Writing - Review & Editing. **Hala Burhoum:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Tuba Azeem:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Iman Husain:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Zarqa Shaheen Ali:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Zahra Haidary:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Nasratullah Hamid:** Data Curation, Writing - Original Draft (Method), Writing - Review & Editing. **Zahra Emamzadeh:** Writing - Original Draft (Strengths and Limitations, Conclusion), Writing - Review & Editing. **Rizwan Sulehry:** Writing - Original Draft (Strengths and Limitations, Conclusion), Writing - Review & Editing. **Somia Tasneem:** Writing - Original Draft (Strengths and Limitations, Conclusion), Writing - Review & Editing. **Aarif Rasheed:** Conceptualization, Data Curation, Writing - Review & Editing, Funding Acquisition. **Kumar Yogeeswaran:** Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing, Funding Acquisition. **Chris G. Sibley:** Conceptualization, Methodology, Resources, Data Curation, Supervision, Writing - Original Draft, Writing - Review & Editing, Project Administration, Funding Acquisition. **Joseph A. Bulbulia:** Conceptualization, Methodology, Resources, Supervision, Writing - Original Draft, Writing - Review & Editing, Project Administration, Funding Acquisition.

Appendix

Title for Appendix