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

A quantitative study protocol

Usman Afzali[1], Jamila Badis[1], Parus Khoso[2], Gul e Aqsa[3], Farah Shawkat[1], Fatima Junaid[4],

Hussain Raissi[5], Hala Burhoum[1], Tuba Azeem[6], Iman Husain[1], Zarqa Shaheen Ali[7], Zahra

Haidary[1], Nasratullah Hamid[8], Zahra Emamzadeh[9], Rizwan Sulehry[10], Somia Tasneem[1], Aarif

Rasheed[11], Kumar Yogeeswaran[1], Chris G. Sibley[12], and Joseph A. Bulbulia[13,14]

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

[2]College of Education, University of Canterbury

[3]School of Health Sciences, University of Canterbury

[4]School of Management, Massey University

[5]School of Social Science, University of Otago

[6]School of ABC, Victoria University of Wellington

[7]ICL Business School, New Zealand Skills and Education College

[8]School of Psychological Medicine, Universit of Otago

[9]TBA, Ministry of Education

[10]School of Management, Victoria University of Wellington

[11]Just Community

[12]School of Psychology, University of Auckland

[13]School of Psychology, Victoria University of Wellington

[14]Department 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 engagment, 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

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**Introduction**

The devastating far-right extremist attack on two mosques in Christchurch that killed 51 and injured another 49 Muslims (*Royal Commission of Inquiry into the Terrorist Attack on Christchurch Masjidain on 15 March 2019*, 2020), albeit shocking to the world (*World Leaders Condemn New Zealand Mosque Attacks*, 2019) and unprecedented in New Zealand (*Jacinda Ardern on the Christchurch Shooting*, 2019), was not as surprising to the Muslim community and their leadreship (Rahman, 2019) due to the widespread experience of Islamophobia and prejudice (Sibley et al., 2020). With oversease reports showing increased Islamophobia following these attacks (*Islamophobia After Christchurch Terror Attacks Quadrupled - Australian Report | RNZ News*, 2022), we have reasons to see an array of hope in New Zealand due to reports of recent improved attitudes towards Muslims (Bulbulia et al., 2023; Shanaah et al., 2021). 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 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 diveristy 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.

## 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 coud 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.

- **Measures:**

1. Religious behaviours: Religion.Church.T… (How many times did you attend a church or place of worship in the last month?) Religion.Prayer.T… (How many times did you pray in the last week?)

2. Perceived discrimination - personal: Perc.Religious.Discrim.T… (I feel that I am often discriminated against because of my religious/spiritual beliefs.)

3. Intergroup Warmth Ratings: Warm.Muslims.T… (Warmth toward Muslims).

4. Other potentially relevant variables include: Rel.Belong01.T… (Know that people in my life accept and value me.) Rel.Support01.T… (There are people I can depend on to help me if I really need it.)

5. Employment variables: Emp.CurrentJobYEARS.T… (How long have you worked at your current organization? (years/months)) Emp.JobSat.T… (How satisfied are you with your current job?) Emp.JobSecure.T… (How secure do you feel in your current job?) Emp.JobValued.T… (How valued do you feel by your current organization?) Emp.WorkHome.T… (How able are you to perform your job from home?) Emp.SkillDev.T… (To what extent does your organization provide opportunities for skill development/further training?) Emp.Retrain.T… (How likely is it that you will need to re-train or gain a qualification for a new job within the next 5 years?) Emp.WorkLifeBalance.T… (I have a good balance between work and other important things in my life.)

6. Health variables: HLTH.SFHealth01.T… (In general, would you say your health is…) HLTH.SFHealth02r.T… (I seem to get sick a little easier than other people.) HLTH.SFHealth03r.T… (I expect my health to get worse.) HLTH.Disability.T… (Do you have a health condition or disability that limits you, and that has lasted for 6+ months?) HLTH.Diagnose.Cholesterol.L2.T… HLTH.Diagnose.BloodPressure.L2.T… HLTH.Diagnose.Asthma.L2.T… HLTH.Diagnose.HeartDisease.L2.T… HLTH.Diagnose.Diabetes.L2.T… HLTH.Diagnose.Depression.L2.T… HLTH.Diagnose.Anxiety.L2.T… HLTH.Diagnose.VitDef.L2.T… Disease diagnosis - Other (open-ended) (coded string) HLTH.Kessler01.T… to HLTH.Kessler06.T…

(Kessler-6 items measuring psychological distress) SWB.LifeSat01.T…, SWB.LifeSat02.T… (Satisfaction with life items)

7. Subjective well-being variables: SWB.LifeSat01.T…, SWB.LifeSat02.T… (Satisfaction with life items) SWB.SatPWI01.T… to SWB.SatPWI04.T… (Personal Wellbeing Index items) SWB.SatNWI01.T… to SWB.SatNWI03.T… (National Wellbeing Index items) SWB.SoC01.T… (I feel a sense of community with others in my local neighbourhood.) Happiness01.T… to Happiness04r.T… (Happiness items)

8. Meaning of life variables: LifeMeaning01.T… (My life has a clear sense of purpose.) LifeMeaning02.T… (I have a good sense of what makes my life meaningful.)

9. Psychological distress variables: SWB.Kessler01.T… to SWB.Kessler06.T… (Kessler-6 items measuring psychological distress) HLTH.Diagnose.Depression.L2.T…, HLTH.Diagnose.Anxiety.L2.T… (Depression and anxiety diagnosis variables) Rumination.T… (During the last 30 days, how often did…. you have negative thoughts that repeated over and over?) EmotionRegulation01.T… to EmotionRegulation03.T… (Emotion regulation items)

- **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.
```

**Response Rate Over Time**
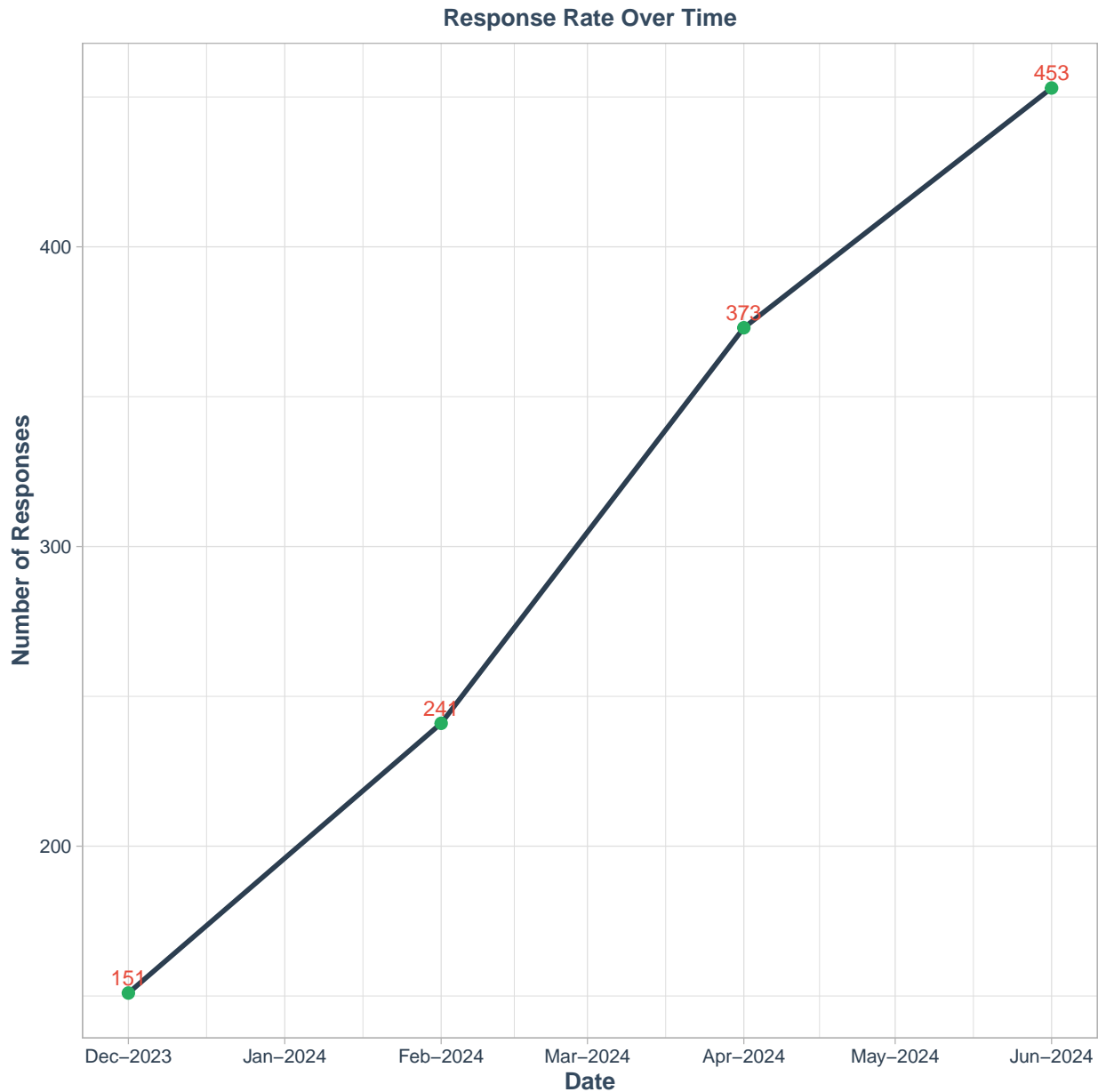


- **Procedure:** Outline the procedure for data collection at each time point, whether face-to-face or virtual.

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
```
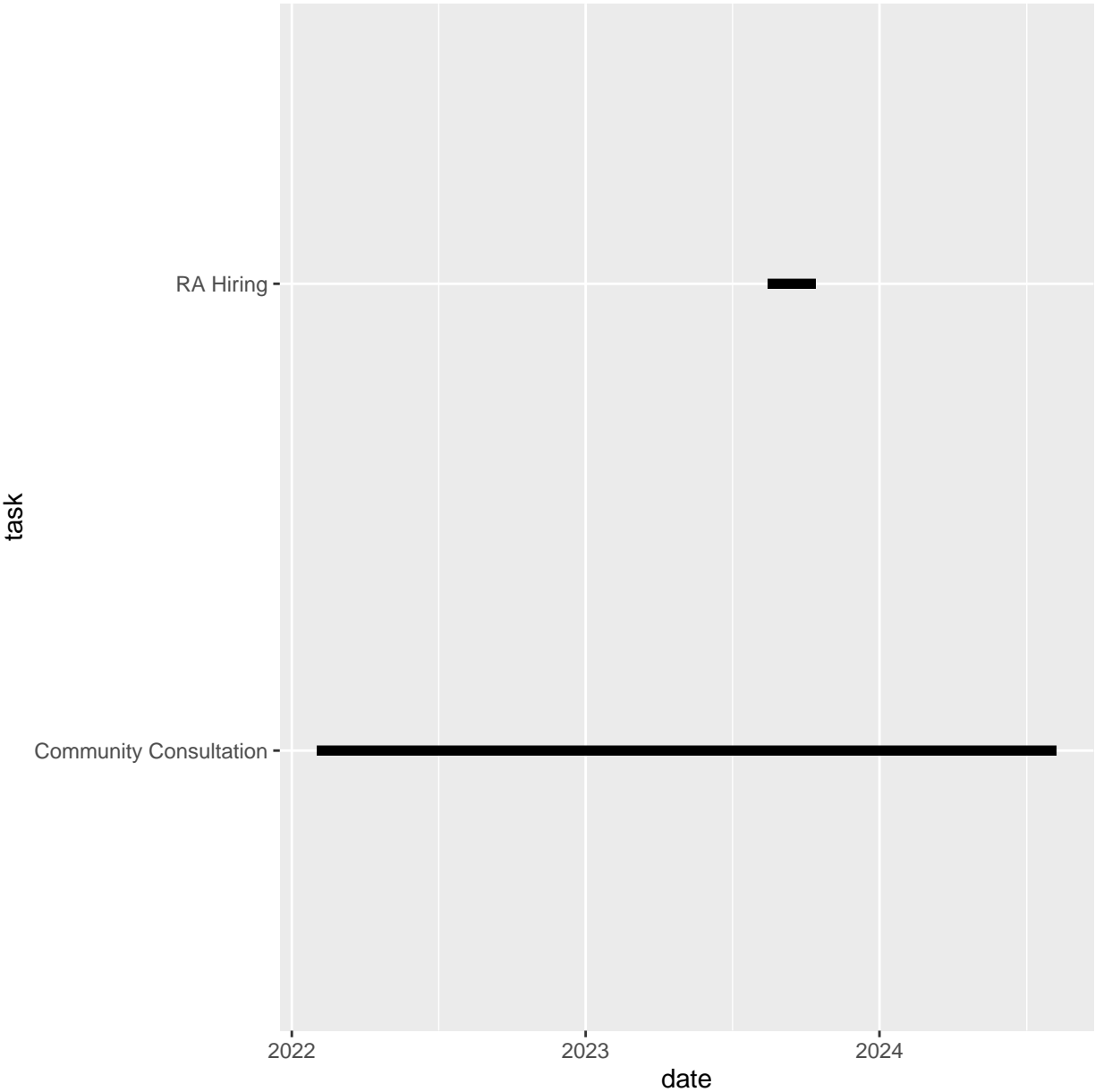
**Strengths and Limitations**

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

### 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.

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**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**