Charity Under Uncertainty: Ramadan Giving in a Pandemic

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Author Biography

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Introduction

Charity is an important factor in balancing the allocation of resources in society.[1,2] Charity is also an important factor in disciplining the *nafs* (soul) and spiritual growth. Due to its numerous benefits to the giver, recipient, and society, the importance of giving charity is highly emphasized in Islam.[3] The Prophet Muhammad ﷺ succinctly explained the status of charity in Islam when he said, "Charity is a proof [of true faith]."[4] For Muslims worldwide, charity is essential to fighting poverty and developing Islamic institutions, such as *masjid*s and educational institutions. In the United States and Canada, over $410 billion dollars are donated annually, and religious causes are the largest recipients of charitable contributions.[5] Although much has been written on religious giving in America, Muslim giving attitudes and behaviors have received very little attention.[6] As the global pandemic has resulted in a substantial amount of economic and health uncertainty, the need for charity is incredibly high as people and nonprofits have been substantially affected. In this paper, I investigate Muslim giving during the pandemic, specifically in Ramadan 2020, as it presents an opportunity to deeply investigate the psychological and demographic factors related to Muslim giving during the most sacred time of year. Furthermore, the insights provide us with lessons for non-profits who are fundraising and an opportunity for introspection for prospective donors.

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[1] Marlone D. Henderson, Szu-chi Huang, and Chiu-chi Angela Chang, "When Others Cross Psychological Distance to Help: Highlighting Prosocial Actions toward Outgroups Encourages Philanthropy," *Journal of Experimental Social Psychology* 48, no. 1 (2012): 220–25.

[2] Zara Khan, "Reviving the Waqf Tradition: Moral Imagination and the Structural Causes of Poverty", Yaqeen, July 2, 2020, https://yaqeeninstitute.org/zarakhan/reviving-the-waqf-tradition-moral-imagination-and-the-structural-causes-of-poverty

[3] Khalil Abdurrashid, "Financing Kindness as a Society: The Rise and Fall of Islamic Philanthropic Institutions (Waqfs)," Yaqeen, January 9, 2020, https://yaqeeninstitute.org/khalil-abdurrashid/financing-kindness-as-a-society-the-rise-fall-of-islamic-philanthropic-institutions-waqfs/.

[4] *Ṣaḥīḥ Muslim*, no. 223.

[5] "Giving USA 2018: The Annual Report on Philanthropy for the Year 2017," Giving USA, 2018; "Research About Giving in Canada," Imagine Canada, http://sectorsource.ca/research-and-impact/giving-research.

[6] See https://www.ispu.org/why-muslims-give/ for demographics of Muslim giving.

Giving during the COVID-19 Pandemic

People give for a variety of reasons, and their motivation to donate may vary with time, place, and the type of organization being donated to. Some of the well-known sociodemographic factors that influence giving include income, age, and education level.[7] Additionally, psychological factors that relate to donations include altruism,[8] social norms,[9] perceptions about money,[10] ingroup-outgroup perceptions,[11] and empathy.[12] Religion is another fundamental motivator of giving, which may be especially important during times of uncertainty.

Donations have been found to decrease during times of economic uncertainty.[13] Sudden shocks to income and wealth partially explain the drop-off, but there are important psychological attitudes towards giving that may also affect giving behavior. Furthermore, attitudes that develop during economic uncertainty may persist well after these times are over, making the consequences of economic uncertainty far longer lasting than simply the specific period of uncertainty.[14] Non-profits are especially susceptible to shocks during times of recession, as reduced donations received from households, governments, and foundations cause

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[7] René Bekkers and Pamala Wiepking, "Who Gives? A Literature Review of Predictors of Charitable Giving Part One: Religion, Education, Age and Socialisation," *Voluntary Sector Review* 2, no. 3 (2011): 337–65.
[8] Karen Wright, "Generosity vs. Altruism: Philanthropy and Charity in the United States and United Kingdom," *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 12, no. 4 (2001): 399–416.
[9] Joanne R. Smith and Andreè McSweeney, "Charitable Giving: The Effectiveness of a Revised Theory of Planned Behaviour Model in Predicting Donating Intentions and Behaviour," *Journal of Community and Applied Social Psychology* 17, no. 5 (2007): 363–86.
[10] Pamala Wiepking and Beth Breeze, "Feeling Poor, Acting Stingy: The Effect of Money Perceptions on Charitable Giving," *International Journal of Nonprofit and Voluntary Sector Marketing* 17, no. 1 (2012): 13–24.
[11] David John Hart and Andrew Robson, "Does Charity Begin at Home? National Identity and Donating to Domestic versus International Charities," *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 30, no. 4 (2019): 865–80.
[12] Arjen De Wit and Rene Bekkers, "Exploring Gender Differences in Charitable Giving: The Dutch Case," *Nonprofit and Voluntary Sector Quarterly* 45, no. 4 (2016): 741–61.
[13] H. Daniel Heist and Danielle Vance-McMullen, "Understanding Donor-Advised Funds: How Grants Flow During Recessions," *Nonprofit and Voluntary Sector Quarterly* 48, no. 5 (2019): 1066–93.
[14] Jonathan Meer, David Miller, and Elisa Wulfsberg, "The Great Recession and Charitable Giving," *Applied Economics Letters* 24, no. 21 (2017): 1542–49.

non-profits to curtail their activities or shut down completely.[15] Making the situation more precarious is that two-thirds of non-profits report possessing only two months of cash reserves.[16] Sadly, as the demand for the services offered by many non-profits may increase during times of uncertainty and recession, their fundraising may decrease. A large survey by the *Chronicle of Philanthropy* during the COVID-19 pandemic reported that one in five donors "won't be giving to charity until the economy is back up and running."[17] These are all serious concerns that limit the ability of *masjid*s, social service organizations, and educational instructions to serve their communities. How does all of this relate to Muslim giving as Ramadan nears?

Giving during Ramadan

Ramadan is a month of intense worship and giving. Ibn ʿAbbās reported, "The Messenger of Allah was the most generous of people and he was even more generous in Ramadan when Angel Jibrīl would meet him. He would meet him every night of Ramadan to study the Qur'an. Thus, the Prophet ﷺ would be more generous than a nourishing wind."[18] Imām al-Nawawī commented on this hadith saying, "Our scholars said that being generous and performing favors are highly recommended during Ramadan… This month is honored and good deeds performed in this month are more blessed than they are at any other time."[19] Thus, the month of Ramadan stands out as a time when increased prayers and Qur'an reading should cause the believer to be extra generous. It is not surprising that Muslims typically donate more in Ramadan than any other time of the year.[20]

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[15] Kirsten A. GrØnbjerg and Anjali Bhatt, "Nonprofit Paid Employment in Social Assistance Update Report, Indiana 1995-2018" (PhD diss., Indiana University, 2020).
[16] Laura Deitrick, Tessa Tinkler, Emily Young, Colton C. Strawser, Connelly Meschen, Nallely Manriques, and Bob Beatty, "Nonprofit Sector Response to COVID-19," The Nonprofit Institute, University of San Diego, 2020.
[17] M. Theis, "One in Five Donors Has Stopped Giving, Survey Says," *The Chronicle of Philanthropy*, May 6, 2020, https://www.philanthropy.com/article/one-in-five-donors-has-stopped-giving-survey-says/.
[18] Source: *Ṣaḥīḥ al-Bukhārī*, no. 1803; *Ṣaḥīḥ Muslim*, no. 2308.
[19] *Al-Majmūʿ sharḥ al-muhadhdhab* (Beirut: Dar al-Fikr, 2000), 6:424.
[20] Muhi Khwaja, "Harnessing the Power of Muslim Philanthropy," *Philanthropy Journal*, August 12, 2019, https://pj.news.chass.ncsu.edu/2019/08/12/harnessing-the-power-of-muslim-philanthropy/.

Ramadan is also the month when Muslim organizations intensively fundraise, as they are aware of the theological importance of this sacred month to prospective donors. Believers are often motivated to give more during Ramadan for a number of reasons, including anticipation of greater reward from Allah,[21] increased solicitations from Islamic organizations, and higher levels of optimism and well-being during the month.[22] To demonstrate how Muslim economic behavior may change in Ramadan, a study of Muslim-majority countries and stock market returns found that returns were substantially higher during Ramadan, suggesting that higher returns in Ramadan could be explained by changes in investor psychology, such as increased optimism and life satisfaction.[23] Similarly, in another study demonstrating increased giving behavior, Iranian Muslims reported a 154% increase in organ donation willingness in Ramadan.[24]

Ramadan in 2020 occurred in the early months of the COVID-19 pandemic. Due to social isolation guidelines, nearly all mosques were closed for the duration of the lunar month (April 23-May 23), an unprecedented event in modern history. As in-person services were not offered, and solicitation was exclusively done online, over the telephone, or through mail campaigns, giving behavior was substantially different than in prior years. Additionally, the uncertainty due to the COVID-19 pandemic may also have impacted Muslims' emotions, attitudes, and economic choices.

The psychology of decision-making under uncertainty

The pandemic has resulted in elevated levels of stress and anxiety, both of which influence decisions involving risk and uncertainty, such as increased preferences

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[21] Shadiya Mohamed Saleh Baqutayan, Magda Ismail A. Mohsin, Akbariah Mohd Mahdzir, and Aini Suzana Ariffin, "The Psychology of Giving Behavior in Islam," *Sociology International Journal* 2, no. 2 (2018): 88–92.
[22] Based on comparisons of data pre- and post-Ramadan 2020, collected by Yaqeen.
[23] Jedrzej Pawel Bialkowski, Ahmad Etebari, and Tomasz Piotr Wisniewski, "Piety and Profits: Stock Market Anomaly during the Muslim Holy Month," Finance and Corporate Governance Conference, 2010.
[24] Katayoun Najafizadeh, Fariba Ghorbani, Sajjad Hamidinia, Mohammad Ali Emamhadi, Mohammad Ali Moinfar, Omid Ghobadi, and Shervin Assari, "Holy Month of Ramadan and Increase in Organ Donation Willingness," *Saudi Journal of Kidney Diseases and Transplantation* 21, no. 3 (2010): 443.

for low-risk, low-reward options.[25] Financial anxiety due to worrying about losing employment or investments due to the stock market and economic uncertainty may influence giving behavior.[26] For example, for some people, the small probability of losing one's job or small probability of a stock market crash may cause them to withhold donating out of excessive fear. An Islamic understanding of the psychological antecedents and consequences of financial anxiety may help explain and change giving attitudes and behavior. In this paper, I investigate the antecedents and consequences of two psychological mechanisms related to giving (1) financial anxiety and (2) subjective financial well-being.

Financial anxiety

Uncertainty intolerance (UI) is hypothesized to cause employment and financial anxiety. Uncertainty intolerance can be defined as a cognitive bias that affects how a person perceives, interprets, and responds to uncertain situations cognitively, emotionally, and behaviorally.[27] Decades of research on the etiology of worrying have suggested that uncertainty intolerance is the root cause of worry and generalized anxiety disorder.[28] Prior research has found that uncertainty intolerance predicts increased anxiety in Muslims, risk aversion in economic situations,[29] and experimental research has found that individuals' risk preferences also influence their giving behavior.[30]

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[25] George F. Loewenstein, Elke U. Weber, Christopher K. Hsee, and Ned Welch, "Risk as Feelings," *Psychological Bulletin* 127, no. 2 (2001): 267; Drazen Prelec, "The Probability Weighting Function," *Econometrica* (1998): 497–527.

[26] Jennifer S. Lerner and Dacher Keltner, "Beyond Valence: Toward a Model of Emotion-Specific Influences on Judgement and Choice," *Cognition & Emotion* 14, no. 4 (2000): 473–93; Rajagopal Raghunathan and Michel Tuan Pham, "All Negative Moods Are Not Equal: Motivational Influences of Anxiety and Sadness on Decision Making," *Organizational Behavior and Human Decision Processes* 79, no. 1 (1999): 56–77.

[27] Kristine Buhr and Michael J. Dugas, "The Intolerance of Uncertainty Scale: Psychometric Properties of the English Version," *Behaviour Research and Therapy* 40, no. 8 (2002): 931–45.

[28] Michel J. Dugas, Andrea Schwartz, and Kylie Francis, "Brief Report: Intolerance of Uncertainty, Worry, and Depression," *Cognitive Therapy and Research* 28, no. 6 (2004): 835–42.

[29] Tatiana V. Kornilova, Maria A. Chumakova, and Sergey A. Kornilov, "Tolerance and Intolerance for Uncertainty as Predictors of Decision Making and Risk Acceptance in Gaming Strategies of the Iowa Gambling Task," *Psychology in Russia* 11, no. 3 (2018): 86; David Schröder and Gail Gilboa Freedman, "Decision Making Under Uncertainty: The Relation between Economic Preferences and Psychological Personality Traits," *Theory and Decision*, 2020, 1–23.

[30] Elena Cettolin, Arno Riedl, and Giang Tran, "Giving in the Face of Risk," *Journal of Risk and Uncertainty* 55, no. 2 (2017): 95–118.

Uncertainty intolerance has been linked to giving behavior at the national level. In a study of 79 countries, higher levels of uncertainty avoidance at the country level were associated with less charitable giving at the country level.[31] In another study of 135 countries, countries high in uncertainty avoidance had lower donor frequencies.[32] For any particular individual, we hypothesize that uncertainty intolerance during an uncertain time (i.e., the COVID-19 pandemic) will induce some type of financial anxiety, which in turn is expected to diminish charitable giving. Real option theory suggests that financial stress influences economic behavior by incorporating the value of waiting before making a decision, thus allowing the uncertainty to be resolved before making a financial investment.[33] In the case of giving during the pandemic, someone may elect to wait until after the pandemic has ended or they have more certainty in their financial situation before donating.

Mindfulness is another psychological mechanism related to uncertainty intolerance and anxiety. From an Islamic perspective, mindfulness refers to the ability to live in the present moment in the presence of Allah with openness and acceptance.[34] By definition, being mindful implies not dwelling on the past or obsessing over the future. Thus, mindfulness may prevent individuals from being paralyzed in the face of uncertainty, whereas uncertainty intolerance leads to delaying decisions or decision paralysis.[35] Mindfulness may thus operate as a central mechanism in reducing uncertainty intolerance and improving decision-making. Mindfulness interventions have been found to reduce uncertainty intolerance and health anxiety,

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[31] Ivana Stojcic, Lu Kewen, and Ren Xiaopeng, "Does Uncertainty Avoidance Keep Charity Away? Comparative Research between Charitable Behavior and 79 National Cultures," *Culture and Brain* 4, no. 1 (2016): 1–20.
[32] Peter B. Smith, "To Lend Helping Hands: In-Group Favoritism, Uncertainty Avoidance, and the National Frequency of Pro-Social Behaviors," *Journal of Cross-Cultural Psychology* 46, no. 6 (2015): 759–71.
[33] Troy Davig and Craig Hakkio, "What Is the Effect of Financial Stress on Economic Activity?," *Federal Reserve Bank of Kansas City, Economic Review* 95, no. 2 (2010): 35–62.
[34] Juston Parrott, "How to Be a Mindful Muslim: An Exercise in Islamic Meditation," *Yaqeen*, November 21, 2017, https://yaqeeninstitute.org/justin-parrott/how-to-be-a-mindful-muslim-an-exercise-in-islamic-meditation.
[35] Howard Berenbaum, Keith Bredemeier, and Renee J. Thompson, "Intolerance of Uncertainty: Exploring Its Dimensionality and Associations with Need for Cognitive Closure, Psychopathology, and Personality," *Journal of Anxiety Disorders* 22, no. 1 (2008): 117–25.

[36] and we hypothesize the same relations to hold between mindfulness, uncertainty intolerance, and financial anxiety.

Subjective financial well-being

From both a psychological and economic perspective, one's perception of their financial situation should relate to their economic choices. Subjective financial well-being refers to perceptions of financial strain, manageability of finances, and financial prospects.[37] People derive a sense of economic security, or lack thereof, from both their current economic situation and perceptions of future economic well-being.[38] Higher subjective financial well-being is associated with better life satisfaction, mood, and health.[39] Studies have found a positive relation between subjective financial well-being and donations,[40] even when accounting for actual income.[41] Thus, subjective financial well-being is hypothesized to improve one's mood, which may then predict philanthropic behavior.[42]

From an Islamic perspective, subjective perceptions of financial well-being are matters of spirituality. The Prophet ﷺ was keen to reframe perceptions of wealth

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[36] Kristen M. Kraemer, Emily M. O'Bryan, and Alison C. McLeish, "Intolerance of Uncertainty as a Mediator of the Relationship between Mindfulness and Health Anxiety," *Mindfulness* 7, no. 4 (2016): 859–65; David A. Lovas and Arthur J. Barsky, "Mindfulness-Based Cognitive Therapy for Hypochondriasis, or Severe Health Anxiety: A Pilot Study," *Journal of Anxiety Disorders* 24, no. 8 (2010): 931–35.

[37] Michael J. Zyphur, Wen-Dong Li, Zhen Zhang, Richard D. Arvey, and Adam P. Barsky, "Income, Personality, and Subjective Financial Well-Being: The Role of Gender in Their Genetic and Environmental Relationships," *Frontiers in Psychology* 6 (2015): 1493.

[38] Eileen Y. Chou, Bidhan L. Parmar, and Adam D. Galinsky, "Economic Insecurity Increases Physical Pain," *Psychological Science* 27, no. 4 (2016): 443–54.

[39] Richard G. Netemeyer, Dee Warmath, Daniel Fernandes, and John G. Lynch, Jr., "How Am I Doing? Perceived Financial Well-Being, Its Potential Antecedents, and Its Relation to Overall Well-Being," *Journal of Consumer Research* 45, no. 1 (2018): 68–89; Soyeon Shim, Jing J. Xiao, Bonnie L. Barber, and Angela C. Lyons, "Pathways to Life Success: A Conceptual Model of Financial Well-Being for Young Adults," *Journal of Applied Developmental Psychology* 30, no. 6 (2009): 708–23.

[40] Roger Bennett and Rita Kottasz, "Emergency Fund‐Raising for Disaster Relief," *Disaster Prevention and Management: An International Journal* 9, no. 5 (2000): 352–60.

[41] Bodo B. Schlegelmilch, Alix Love, and Adamantios Diamantopoulos, "Responses to Different Charity Appeals: The Impact of Donor Characteristics on the Amount of Donations," *European Journal of Marketing* 31, no. 8 (1997): 548–60.

[42] Leon Zolotoy, Don O'Sullivan, Myeong-Gu Seo, and Madhu Veeraraghavan, "Mood and Ethical Decision Making: Positive Affect and Corporate Philanthropy," *Journal of Business Ethics*, 2020, 1–20; Evelyne J. Dyck and Gary Coldevin, "Using Positive vs. Negative Photographs for Third-World Fund Raising," *Journalism Quarterly* 69, no. 3 (1992): 572–79.

and well-being in the hearts of the companions. In the following hadith narrated by Abū Dharr, he explains how the Prophet ﷺ wanted him to consider subjective well-being.

> "O Abū Dharr, do you say an abundance of possessions is wealth?" I said yes. The Prophet said, "Do you say a lack of possessions is poverty?" I said yes. The Prophet repeated this three times, then he said, "Wealth is in the heart and poverty is in the heart. Whoever is wealthy in his heart will not be harmed no matter what happens in the world. Whoever is impoverished in his heart will not be satisfied no matter how much he has in the world. Verily, he will only be harmed by the greed of his own soul."[43]

This hadith provides evidence that actual wealth and subjective perceptions of wealth are distinct. Actual wealth is related to the material world and subjective wealth is related to the spiritual world. Thus, understanding how an incongruence between actual and subjective wealth manifests is important for the believer. Prior research has found that the relation between income and subjective financial well-being depends on a person's material desires.[44] Thus, the discrepancy between what a person has and what a person desires reduces subjective perceptions of wealth; upward social comparisons have the same result. Further evidence suggests that financial anxiety is a strong factor that predicts subjective perceptions of financial well-being.[45] Therefore, it appears that uncertainty intolerance and mindfulness relate to financial anxiety directly and to subjective financial well-being indirectly. We investigate these issues empirically in the study described below.

Muslim giving in Ramadan 2020

[43] *Al-Muʿjam al-kabīr lil-Ṭabarānī*, no. 1618.
[44] Emily Crawford Solberg, Ed Diener, Derrick Wirtz, Richard E. Lucas, and Shigehiro Oishi, "Wanting, Having, and Satisfaction: Examining the Role of Desire Discrepancies in Satisfaction with Income," *Journal of Personality and Social Psychology* 83, no. 3 (2002): 725.
[45] Agata Gasiorowska, "The Relationship between Objective and Subjective Wealth Is Moderated by Financial Control and Mediated by Money Anxiety," *Journal of Economic Psychology* 43 (2014): 64–74.

The Yaqeen Institute for Islamic Research conducted a survey at the end of Ramadan 2020 (Experiencing Ramadan in Social Isolation survey).[46] The current study includes a sub-sample of 1,722 North American Muslims. The participants were 78% female,[47] the average age category was 25-34 years old, the average annual income was $50,000 to $75,000, and the average education level was a bachelor's degree. This study is focused on understanding the religious, demographic, and psychological factors that relate to the amount of money donated in Ramadan 2020. Our primary research questions were the following:

1. To what extent do mindfulness, uncertainty intolerance, and income predict financial anxiety?
2. To what extent do financial anxiety, income, age, and education predict subjective financial well-being?
3. To what extent do demographics (age, income, income), spiritual practice, financial anxiety, and subjective financial well-being predict Ramadan donations?

Measures

The following constructs were measured by our survey, with all questions using a Likert scale (e.g., bounded from 1 to 5). See Appendix A for a complete list of items used.

Mindfulness. Three items from the mindful attention awareness scale[48] were used to measure dispositional mindfulness ($\alpha = .86$).[49]

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[46] ERSI was a cross-sectional online survey of Muslims worldwide and how they experienced Ramadan amidst the COVID-19 pandemic. Participants were recruited via email and social media. The full sample included 3,800 Muslims worldwide.

[47] Although the number of women is very high, the difference in giving behavior between genders was not significantly different (t=1.77)

[48] Kirk Warren Brown and Richard M. Ryan, "The Benefits of Being Present: Mindfulness and Its Role in Psychological Well-Being," *Journal of Personality and Social Psychology* 84, no. 4 (2003): 822.

[49] We used confirmatory factor analysis to show that the three mindfulness items loaded on a common factor of trait mindfulness. See Table 3 for factor loadings.

Uncertainty intolerance. Two items from the intolerance of uncertainty scale[50] were used to measure attitudes towards uncertainty (α = .80)

Financial anxiety. Two items measured worry related to the individual's employment and financial situation. "How worried are you about your financial situation?" & "How financially well-off (well-to-do) do you consider yourself?" (α = .82)

Spiritual practice. Two items were created to measure spiritual practice. Reading the Qur'an and praying *tarawih* are two central aspects of spiritual practice during Ramadan. Respondents were asked one question about Qur'an reading outside of Ramadan to get a measure of trait religiosity and one question about whether they prayed *tarāwīḥ* to get a measure of state religiosity. "Outside of Ramadan, how often do you read the Qur'an?" The variable was dichotomized to code for those who reported reading the Qur'an daily and those who did not. Respondents were also asked, "Did you pray *tarāwīḥ* at home this year?" The responses to the two items were added together to create a score for religiosity.

Demographic covariates. Respondents were asked to report their annual income bracket, highest level of education completed, and age bracket.

Donations. One item asked about total donations in Ramadan. "How much money did you donate this Ramadan in total?" Options ranged from 1 = $0 to 7 = $5000+.

Analyses

Structural equation modeling was used to examine the relations among mindfulness, uncertainty intolerance, financial anxiety, spiritual practice, demographics, and reported donation amount (see Figure 1 for a diagram of the hypothesized model).[51]

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[50] Kristine Buhr and Michael J. Dugas, "The Intolerance of Uncertainty Scale: Psychometric Properties of the English Version," *Behaviour Research and Therapy* 40, no. 8 (2002): 931–45.

[51] Stata 15 was used to estimate the complete path model. Model fit was first assessed using the chi-squared statistic (χ^2), as it is the only inferential statistic in SEM for model fit. Additionally, we used two alternative fit indices, the

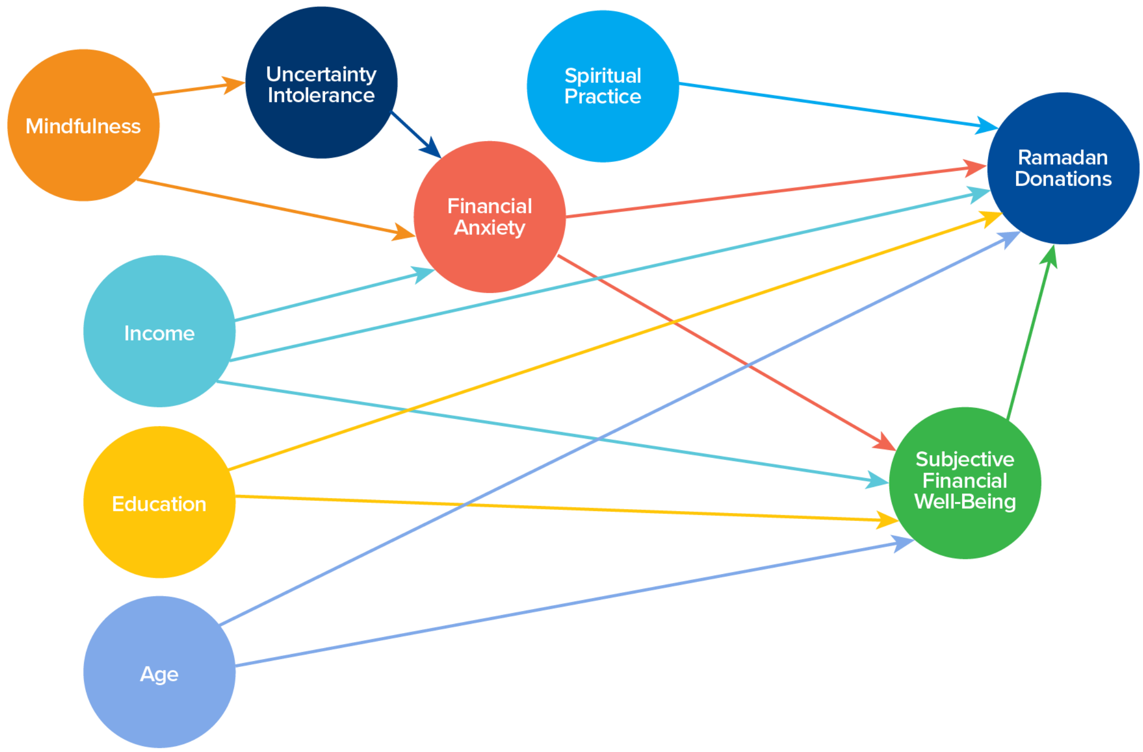

Figure 1: **Hypothesized SEM of Giving under Uncertainty in Ramadan**

The hypothesized model conceptualized mindfulness, uncertainty intolerance, and income as predictors of financial anxiety, with uncertainty intolerance partially mediating the effect of mindfulness. Subjective financial well-being was predicted by financial anxiety, income, education, and age. Finally, total donations in dollars were predicted by demographic variables, financial anxiety, subjective financial well-being, and spiritual practice.

Results

root mean error of approximation (RMSEA) and the comparative fit index (CFI). RMSEA values below .08 and CFI values greater than .95 indicated good fit. There were cases of missing data across the survey items. Missing data on income was substantial (24%). On average, those with missing data on income were significantly higher educated ($t = 5.6$, $p < .001$) and donated less ($t = 2.2$, $p < .05$). We accounted for the missing data by utilizing full-information maximum likelihood (FIML).

What did we learn about Muslim attitudes and giving behavior during the pandemic in Ramadan 2020? In general, Muslims in our sample were quite generous. The median Ramadan donation of our respondents was between $250-499, with nearly 30% donating more than $1000 (see Figure 2). We conservatively estimate that the total Ramadan donations of the 1,722 North American Muslims in our study equaled nearly **2 million dollars**.[52] Here are a few descriptive findings related to financial anxiety and subjective well being:

- Approximately one in four (24%) people agreed or strongly agreed that uncertainty made them stressed and unable to relax.
- Three in ten people (30%) were at least somewhat worried about their financial situation.
- Approximately one in four (23%) felt they were either hardly well-off or not well-off at all (see Figure 2).

[52] Estimated total donations by assuming each person gave the average value of the category they selected (e.g., $75 if in the $50–99 category and $375 if in the $250–499 category). Since our highest value was $5000+, we assumed no one in that group gave more than $5000, which is likely a severe underestimation.

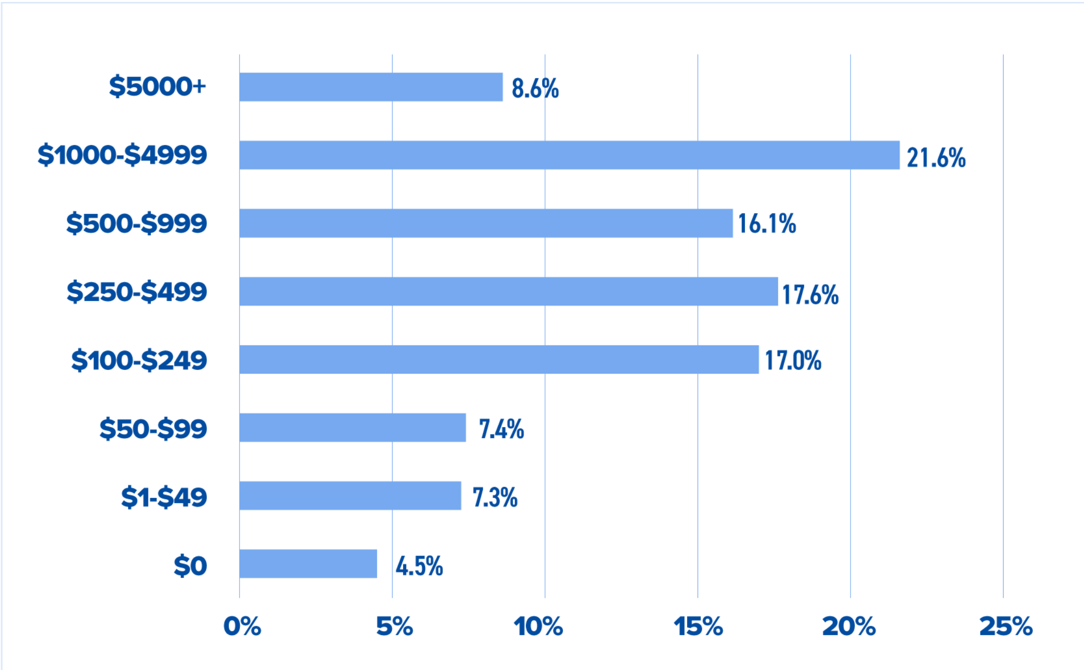

Figure 2: **Ramadan Donations in 2020**

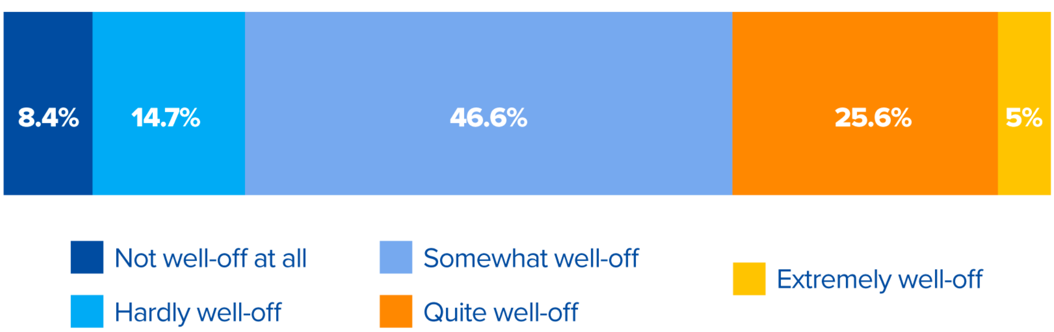

Figure 3: **Subjective Financial Well-Being**

The results of the structural equation model are shown in Figure 4. See Table 1 for descriptive statistics and Table 2 for detailed results of the full model.[53]

Question 1: Predictors of Financial Anxiety?

Uncertainty intolerance (*B*=.18) and mindfulness (*B*=-.16) predicted financial anxiety. In other words, people with higher levels of uncertainty intolerance had more financial anxiety and people with higher levels of mindfulness had less financial anxiety. Additionally, uncertainty intolerance partially mediated the effect of mindfulness on financial anxiety, (*B*=-.09). Income (*B*=-.20) was negatively related to financial anxiety.

Question 2: Predictors of Subjective Financial Well-Being?

Financial anxiety (*B*=-.24) was negatively associated with subjective financial well-being. Thus, people with less financial anxiety felt much more well-off than those with higher financial anxiety, even after accounting for the effect of income. Subjective financial well-being was positively associated with income (*B*=.41). In other words, people with higher income generally reported higher levels of subjective financial well-being. However, many people with higher levels of income still reported moderate levels of financial anxiety, highlighting the subjective nature of financial well-being.

Question 3: Predictors of Ramadan donations?

All demographic variables were related to the amount of money donated. Income (*B*=.23), educational level (*B*=.30), and age (*B*=.28) all positively predicted donations. This means that older, more educated, and wealthier people donated more. Financial anxiety was negatively correlated with donations (*B*=-.06), meaning that more financial anxiety was related to giving less, even when

[53] The model fit the data well. See Table 2 for fit statistics. The measurement model of three mindfulness items represented a common factor.

accounting for the effects of income, education, and age on giving. Subjective financial well-being (B=.11) was positively associated with giving. Financial anxiety thus had a direct effect on giving and an indirect effect on giving through its relationship with subjective financial well-being (B=-.05). Spiritual practice, defined as praying *tarāwīḥ* and reading Qur'an regularly, (B=.07) was positively correlated with donations.

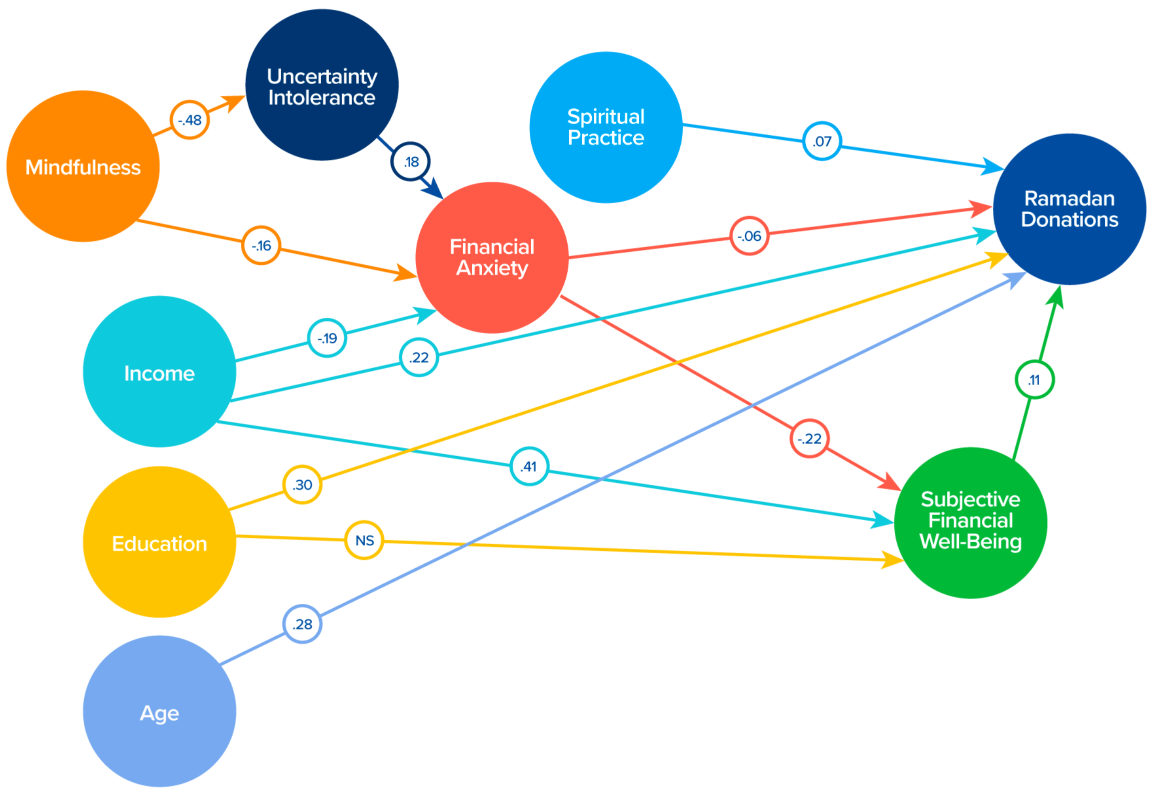

Figure 4: **Results of the Structural Equation Model. All coefficients are standardized and statistically significant.**

Reflections on the findings

This study investigated a unique opportunity to understand real-life philanthropic decision-making during a time of personal and global uncertainty. The goal of the study was to understand the psychological, religious, and demographic predictors of Muslim giving during Ramadan. The primary concern was investigating the psychological and religious aspects of giving and their relevance to Muslim life. The results add to our understanding of Muslim philanthropy and decision-making.

Islam and financial anxiety

Financial anxiety was associated with a decrease in the amount of money donated, even when accounting for income. The antecedents to financial anxiety included uncertainty intolerance and lack of mindfulness. Both uncertainty intolerance and mindfulness relate to core psychological orientations towards life. Mindfulness may aid people in recognizing that the source of their unease may be due to perceived uncertainty, allow them to observe their thoughts non-judgmentally and detach from them, and subsequently reduce anxiety.[54] People who struggle to stay focused on the present moment appear to be especially uncomfortable with the uncertainty of the future, which we have found leads to numerous maladaptive outcomes, including heightened anxiety, increased pessimism, and perceiving fewer blessings.[55] These maladaptive psychological outcomes distort our perception of reality and lead to making suboptimal choices, including donating less money, which is of tremendous reward, especially in the month of Ramadan.

Islam provides substantial guidance on tolerating (and embracing) uncertainty and living in the present moment in the presence of Allah, especially as it relates to financial anxiety and charitable giving. The Prophet ﷺ said, “Wealth does not decrease with charity.”[56] This principle of Islamic philanthropy is meant to serve as a promise to the believer that their charitable contributions will never harm them. To reinforce this notion, the Qur’an repeats multiple times that donations are akin to loaning money to God. Allah says in Surah al-Hadid,

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[54] Natalie Karelaia and Jochen Reb, “Improving Decision Making through Mindfulness,” *Mindfulness in Organizations: Foundations, Research, and Applications*, 2015, 256–84.

[55] Osman Umarji and Hassan Elwan, “Embracing Uncertainty: How to Feel Emotionally Stable in a Pandemic,” *Yaqeen*, March 30, 2020, https://yaqeeninstitute.org/osman-umarji/embracing-uncertainty-how-to-feel-emotionally-stable-in-a-pandemicpaper.

[56] *Ṣaḥīḥ Muslim*, no. 2588.

مَّن ذَا الَّذِي يُقْرِضُ اللَّهَ قَرْضًا حَسَنًا فَيُضَاعِفَهُ لَهُ وَلَهُ أَجْرٌ كَرِيمٌ

"Who is it that would loan Allah a goodly loan so He will multiply it for him and he will have a noble reward?"[57] This is meant to put the heart of a believer at ease by having full confidence that God will pay back the loan generously. The Prophet ﷺ further taught us to turn to Allah for support during times of financial anxiety and to seek His assistance in being charitable. The Prophet ﷺ used to say, "O Allah! I seek refuge with You from anxiety and grief, from incapacity and laziness, from cowardice and stinginess, from being heavily in debt and from being overpowered by (other) men."[58] This hadith exemplifies the comprehensive nature of seeking support from Allah from anxiety, including financial anxiety, as a means to fueling wise economic decisions such as donating and avoiding debt.

Islam and subjective financial well-being

Another important finding was that financial anxiety was related to subjective financial well-being, which was in turn predictive of giving. We want to reiterate that subjective financial well-being was predictive of donations, even after accounting for income, age, and education. Subjective financial well-being is closely related to relative deprivation theory (RDT), which states that income satisfaction is related to social comparisons, desire for a higher salary, and feelings of entitlement or deservingness.[59] According to RDT and subjective financial well-being research, there is no monotonic function between the subjective feeling of deprivation and the objective situation. Rather, through maladaptive social comparisons and increased desire for material possessions, a person may consider themselves less well-off than they truly are. In fact, one novel study has found that experimentally manipulating relative deprivation beliefs increases the desire for immediate rewards, which relates to increased gambling tendencies.[60] Thus, feeling

[57] Qur'an 57:11.
[58] *Ṣaḥīḥ al-Bukhārī*, no. 6369.
[59] Paul D. Sweeney, Dean B. McFarlin, and Edward J. Inderrieden, "Using Relative Deprivation Theory to Explain Satisfaction with Income and Pay Level: A Multistudy Examination," *Academy of Management Journal* 33, no. 2 (1990): 423–36.
[60] Mitchell J. Callan, N. Will Shead, and James M. Olson, "Personal Relative Deprivation, Delay Discounting, and Gambling," *Journal of Personality and Social Psychology* 101, no. 5 (2011): 955.

financially deprived, which is often the result of making social comparisons with those wealthier than us, is maladaptive. It can lead to decisions that feel temporarily rewarding while forgoing long-term benefits. This is clearly seen through the detrimental impact that feelings of financial deprivation can have on giving behavior; it may feel temporarily safer to forgo donations, but Islamically it is clear that giving is highly beneficial in the long run.

Islam provides a clear perspective to combat feelings of relative deprivation and low subjective financial well-being. The Prophet ﷺ said, "Compare [yourself] to those who are lower than you [in wealth] and do not look at those who are above you [in wealth], for it is more suitable that you do not discount the blessings of God."[61] Thus, based on prophetic guidance, downward social comparisons are an essential way to increase gratitude and combat feelings of low financial well-being. Thus, as the month of Ramadan nears, even during times of uncertainty, it behooves the believer to engage in a conscious process of counting their blessings by reflecting over their advantageous financial position relative to the vast majority of people in the world.

Spiritual practices and giving

Performing *tarāwīḥ* prayers in Ramadan and reading the Qur'an daily were associated with increased donations in Ramadan. These two practices are similar in that both involve recitation of and reflection upon the Qur'an. As numerous verses encourage giving charity, reframe the financial mindset of a believer, and inculcate an abundance mindset, daily exposure to these verses[62] may serve to increase

[61] *Ṣaḥīḥ al-Bukhārī*, no. 6125; *Ṣaḥīḥ Muslim*, no. 2963.

[62] Here are a few verses that encourage donating in the Qur'an:

1. And spend in the way of Allah and do not throw [yourselves] with your [own] hands into destruction [by refraining]. And do good; indeed, Allah loves the doers of good (2:195).
2. Believe in Allah and His Messenger and spend out of that in which He has made you successors. For those who have believed among you and spent, there will be a great reward (57:7).
3. The example of those who spend their wealth in the way of Allah is like a seed [of grain] which grows seven spikes; in each spike is a hundred grains. And Allah multiplies [His reward] for whom He wills. And Allah is all-Encompassing and Knowing (2:261).
4. Those who spend their wealth [in Allah's way] by night and by day, secretly and publicly—they will have their reward with their Lord. And no fear will there be concerning them, nor will they grieve (2:274).

donations. These Qur'anic exhortations may have proved to be particularly important in a socially isolated Ramadan, as people did not receive in-person solicitations from the *masjid*. These findings also confirm the general finding that religiosity is related to donations.

Limitations and conclusion

The current study is one of the first empirical investigations into the determinants of Muslim giving in Ramadan, particularly by North American Muslims. Perfection only belongs to Allah, and thus there are always a number of limitations that must be considered in these studies. First, the study relied on cross-sectional data. Therefore, no strong causal claims can be made about the relations between psychological constructs. The study was also limited to Muslims in Ramadan, so whether these mechanisms generalize to giving outside of Ramadan is not known. For example, *tarāwīḥ* is an act of worship unique to Ramadan, so its effect on giving can only be realized in this month. Furthermore, the study was not based on a representative sample of Muslim Americans. However, it is not unreasonable to assume that the main psychological processes discussed should hold across time and across people when understanding philanthropic decision-making during times of uncertainty.

The findings in our study have implications for interventions aimed at reducing financial anxiety, subjective financial well-being, and ultimately giving attitudes and behavior. Invoking particular religious beliefs and practices may be useful tools to put the hearts of believers at ease and motivate optimal giving behavior

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5. And let not those who [greedily] withhold what Allah has given them of His bounty ever think that it is better for them. Rather, it is worse for them. Their necks will be encircled by what they withheld on the Day of Resurrection. And to Allah belongs the heritage of the heavens and the earth. And Allah, with what you do, is [fully] Acquainted (3:180).
6. And whatever you give for interest to increase within the wealth of people will not increase with Allah. But what you give in *zakāh*, desiring the countenance of Allah—those are the multipliers (30:39).
7. Only those are the believers who have believed in Allah and His Messenger, and afterward doubt not but strive with their wealth and their lives for the Cause of Allah. Those! They are the truthful (49:15).
8. And spend [in the way of Allah] from what We have provided you before death approaches one of you and he says, "My Lord, if only You would delay me for a brief term so I would give charity and be among the righteous" (63:10).

during times of uncertainty. A follow-up paper to this study expands on the psychology of wealth and investing in Islam, which is necessary for Muslims to detach themselves from capitalist notions of wealth and investing and reorient themselves to Qur'anic and Prophetic principles of wealth acquisition, spending, and investment.

Table 1:
Means, Standard Deviations, Minimum, and Maximum for All Variables

	Mean	SD	Min	Max
Age	3.59	1.51	1	7
Education	3.87	1.15	1	5
Income	2.95	1.86	1	7
Subjective Financial Well-Being	3.04	0.97	1	5
Mindfulness	4.09	1.16	1	6
Uncertainty Intolerance	2.83	1.14	1	5
Financial Anxiety	2.04	1.02	1	5
Pray Tarawih in Ramadan	0.72	0.45	0	1
Daily Qur'an Reading	0.24	0.43	0	1
Spiritual Practice	0.96	0.67	0	2
Donations	4.14	1.90	1	7
N	1722			

Table 2:
Full Results of the Structural Equation Model

	B	SE	z	p-value
Structural Model				
Uncertainty Intolerance				
Mindulness	-0.48	0.02	-21.60	0.000
Financial Anxiety				
Uncertainty Intolerance	0.18	0.03	6.25	0.000
Income	0.20	0.03	-8.09	0.000
Mindfulness	-0.16	0.03	-5.22	0.000
Subjective Financial Well-being				
Financial Anxiety	-0.22	0.02	-9.43	0.000
Income	0.41	0.02	17.79	0.000
Education	-0.03	0.03	-1.47	0.142
U.S Born				
Financial Anxiety	-0.06	0.02	-2.55	0.010
Sub Financial Well-Being	0.11	0.02	4.63	0.000
Income	0.22	0.02	9.05	0.000
Education	0.30	0.02	12.78	0.000
Spiritual Practice	0.07	0.02	3.43	0.001
Age	0.28	0.02	12.38	0.000
Measurement Model				
Mindful 1	0.73	0.01	48.94	0.000
Mindful 2	0.87	0.01	86.19	0.000
Mindful 3	0.86	0.01	83.83	0.000

Note: Betas are standardized; SE=Standard Error
$\chi2(29) = 231.11$, $p = .000$. RMSEA = .064; CFI = .95

Appendix A

Survey Items Used

What is your annual household income? (before taxes)

- $49,999 or less
- Between $50,000 and $74,999
- Between $75,000 and $99,999
- Between $100,000-$149,999
- Between $150,000-$199,999
- Between $200,000-$249,999

- $250,000+

What is your age?

- Under 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65+

What is the highest level of education you have completed?

- Less than high school degree
- High school degree
- Some college
- College degree
- Masters, PhD, JD, MD

Mindfulness (1 to 6)

- I find it difficult to stay focused on what's happening in the present.
- I find myself doing things without paying attention.
- I rush through activities without being really attentive to them.

Uncertainty intolerance (1-strongly disagree to 5- strongly agree)

- My mind can't be relaxed if I don't know what will happen tomorrow.
- Uncertainty makes me uneasy, anxious, or stressed.

How financially well-off (well-to-do) do you consider yourself? (1 to 5)

How worried are you about your financial situation? (1-not at all worried to 5-extremely worried)

How worried are you about your employment? (1-not at all worried to 5- extremely worried)

Did you pray *tarāwīḥ* at home this year? (Yes/No)

Outside of Ramadan, how often do you read the Qur'an? (1-Hardly ever to 5-daily)

How much money did you donate this Ramadan in total?

- $0
- $1-49
- $50-$99
- $100-$249
- $250-$499
- $500-$999
- $1000-$4999
- $5000+