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Why Is Religious Attendance Linked to More Anxiety in U.S. South Asians? The Mediating Role of Congregational Neglect

Samuel Stroope[1] · Blake Victor Kent[2,3] · Anna Boonin Schachter[2] · Alka M. Kanaya[4] · Alexandra E. Shields[2,5]

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Abstract

Objectives Previous research has identified a positive association between religious attendance and anxiety in U.S. South Asians. The current study assesses the mediating role of congregational neglect as a potential mechanism explaining this association.

Design Analyses relied on data from the Study on Stress, Spirituality, and Health (SSSH) questionnaire in the Mediators of Atherosclerosis in South Asians Living in America (MASALA) study ($n = 936$), the largest community-based study of health among U.S. South Asians. Analyses were conducted using path analysis and adjusted for a variety of background characteristics.

Results Results confirmed that higher levels of religious service attendance were associated with higher levels of anxiety. Congregational neglect was a significant mediator in this relationship, explaining 27% of the association between religious attendance and anxiety. Congregational neglect also had the second largest standardized coefficient in the model.

Conclusions This study provides evidence that congregational neglect plays an important intervening role in the connection between religious service attendance and anxiety among U.S. South Asians. The findings move beyond description, flagging a relevant social process which underlies the relationship. By recognizing the potential adverse effects of religious attendance on anxiety in this population, it may be possible to develop interventions aimed at enhancing social inclusion in South Asian religious communities. In addition to practical implications, this study highlights the need for further research on how communal religious participation shapes mental health in ethnic and racial minority populations in the United States.

Keywords Anxiety · Mental health · South Asian · Religion · Hindu · Muslim · Sikh · Christian · Congregations

Introduction

A sizeable research literature has investigated religious involvement as it relates to both physical and mental health [1–3]. Most of this research has relied on samples from predominantly White populations, but researchers have become increasingly interested in how religion affects health in non-White populations [4]. As such, a small but growing body of work has emerged on non-White racial and ethnic groups in the USA [5, 6], and although South Asians are one of the fastest growing ethnic groups in the USA, they have been underrepresented in religion and health research [7]. Relatively few empirical analyses have assessed the potential influence of religion on the health of U.S. South Asians e.g., [8–11].

Most research using majority-White samples has found that, when religious service attendance is associated with health, the association tends to be salutary [3, 12]. This is also the prevailing pattern of findings for anxiety, where higher attendance is linked to lower levels of anxiety [13, 14]. However, recent analyses of religious participation among U.S. South Asians found that more frequent religious service attendance was associated with higher levels of anxiety, whereas the same was not found for other mental health outcomes [9, 11]. A small number of studies in non-South

✉ Samuel Stroope
sstroope@lsu.edu

1 Louisiana State University, Baton Rouge, LA, USA

2 Harvard/Massachusetts General Hospital Center on Genomics, Vulnerable Populations, and Health Disparities, Boston, MA, USA

3 Westmont College, Santa Barbara, CA, USA

4 University of California, San Francisco, San Francisco, CA, USA

5 Harvard Medical School, Boston, MA, USA

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Asian samples have similarly found this positive association between religious attendance and anxiety [13].

In cases where this is found, one plausible explanation is that people with higher levels of anxiety might attend religious services more frequently as a coping response [15]. Reversing the causal order, it is possible that frequent attendance might lead to anxiety in particular cases. This may happen if attendees have negative experiences while attending a congregation. Some people may experience guilt or shame, for example, through exposure to the religious context [16]. Others may find themselves out of sync with prevailing beliefs or unable to fit in with regard to dominant norms and statuses characterizing the congregation [17]. In these cases, regular attendance may lead to more-frequent exposure and risk for anxiety.

Research on the "dark side" of religion has documented a variety of negative congregant experiences associated with deleterious mental health effects [18]. One negative experience noted in the literature is feeling neglected by one's congregation [19]. Feelings of congregational neglect can arise from a lack of attention to a person in their time of need, a person's disability not being accommodated, or not feeling adequately welcomed into the congregation or into a social circle within the congregation [20–22].

Although experiences of neglect can occur in any congregation, there are good reasons to expect that they are more likely in multicultural religious communities due to challenges in communication and inclusion [23]. Congregations serving smaller minority religions (e.g., Hinduism), especially among populations with a high number of immigrants (e.g., South Asians), are often multicultural in nature and need to fulfill a variety of roles. These roles include functioning as general community centers and/or in relation to the preservation of ethnic identity [24]. South Asian communities in the U.S. are highly multicultural, including with substantial diversity within religions. For example, South Asian immigrants from India, Nepal, Sri Lanka, Bangladesh, Bhutan, and Caribbean and African nations comprise the majority of Hindus in the USA [24–26].[1] U.S. South Asian populations also exhibit within-nationality internal diversity as exemplified in the diversity of mother tongue languages used at home. For example, among Indians in the USA, the most common mother tongue, Hindi, is only claimed by 19% (followed by Gujarati [14%] and an array of others[2]). Similar diversity exists across other aspects of identity and religious practice within religious groups, such that temples, gurudwaras, mosques, churches, and other places of worship that serve South Asian populations must often do so amid high levels of ethnic, linguistic, and cultural diversity and potential social division [24, 31].

Studies of ethnic minorities in religious congregations report lower levels of integration and belonging for minority members [32]. Even self-described "multicultural" or "multiracial" congregations tend to be dominated by a particular group or culture [33]. Thus, among U.S. South Asians, even if one attends a majority-South Asian congregation, one may be in the cultural minority along salient dimensions of identity or practice. For example, if a congregation is primarily comprised of a particular South Asian region, language, or tradition (e.g., Vishnu devotion and Telegu language), worshippers not fitting this profile may feel that they are neglected by the rituals, functions, and life of the congregation. Stark differences in architecture and ritual practices considered sacred for some but irreverent for others are often evident between different regions and traditions within a religion. Out of necessity, in U.S. South Asian congregations, worshippers with these different expectations must share the same building and resources. For example, Hindus renovating a temple in a Denver community described feelings that worshippers "from the South have taken over too much" and reported "a lot of disagreement" [31]. In some parts of the U.S., Vaishnavite immigrants' only option has been to worship at ISKCON temples[3]; worshippers have described feeling uncomfortable associating with the Hare Krishna community due to stigma in American society [31].

Maintaining a sense of belonging in face-to-face social groups, such as religious groups, satisfies an important human need [20, 34]. As such, while congregational neglect, in part, represents dissatisfaction with the group, congregational neglect also likely operates as a threat to the self. This is consequential as senses of helplessness and fear are linked to elevated levels of anxiety [35]. Those who frequently attend a congregation may have greater opportunity to experience the anxiety-producing effects of congregational neglect. Thus, we expect that:

Congregational neglect will play a mediating role in the association between frequency of religious attendance and anxiety.

[1] South Asia is a region with high ethnic and linguistic diversity. India, by far the largest country of origin for South Asian immigrants, exemplifies this diversity. India has 23 official languages and over 100 spoken by sizable populations. There are also overlapping regional cultural differences that cut across the country's linguistic groups. In addition, there are estimated to be roughly 3000 castes in India, which continue to be a meaningful social identity across a variety of religious communities, including among Sikhs, Muslims, and Christians [27, 28]. The nation is also deeply divided on political views and identities [29]. Finally, the aforementioned divisions (i.e., linguistic, regional, caste) run within religious groups and combine to produce high levels of social diversity.

[2] These are followed by English (10%), Telugu (10%), Tamil (8%), Punjabi (7%), Bengali (7%), Malayalam (6%), Urdu (5%), Marathi (4%), and Kannada (3%), with the remaining 7% comprised of a collection of other smaller languages [30].

[3] ISKCON is the acronym for the International Society for Krishna Consciousness.

Data and Methods

This study uses the Study on Stress, Spirituality, and Health (SSSH) religion/spirituality questionnaire [36, 37] in the Mediators of Atherosclerosis in South Asians Living in America (MASALA) study (2010–2018), the largest study of mental and physical health among U.S. South Asians. Participants who met the following criteria were deemed eligible for the study: 40 to 84[4] years of age, of South Asian origin (with at least three grandparents born in any of India, Nepal, Pakistan, Sri Lanka, or Bangladesh), and without any history of cardiovascular disease. Telephone-based recruitment methods were employed in areas with significant South Asian populations as indicated by census data in the San Francisco Bay and greater Chicago areas. The recruitment process involved obtaining a list of 10,000 households, followed by mailing random batches of 100 letters every 2–4 weeks and conducting follow-up phone calls. The sample size for the study cohort was established based on the exclusion criteria of atherosclerosis or traditional cardiovascular disease risk factors among South Asians [7].

The study involved repeated interviews of the same participants and a new sample of participants added at a later time. Baseline MASALA participants were initially recruited in 2010–2013 ($n = 906$). Baseline participants responded to additional follow-up questions between 2015–2018 (exam 2, $n = 749$). New participants were recruited in 2017–2018 (exam 1A, $n = 258$) and were given the same questions as exam 2. Exam 2 and exam 1A participants were administered the SSSH religion/spirituality questionnaire (18 participants did not participate in the SSSH questionnaire). Exam 2 and exam 1A participant data was combined. Some variables for exam 2 participants (e.g., socio-demographic characteristics) were only available from the Baseline survey; these variables were appended to the combined exam 2 and exam 1A sample.

Data filtering for the current analysis was as follows: given the objective of examining the mediating role of congregational neglect, individuals who did not indicate exposure to a religious congregation were excluded. The study's religious attendance measure had a range from "never" to "several times per week." We excluded individuals who did not respond to this question ($n = 48$) or who "never" attended ($n = 0$). After these filters, individuals missing religious affiliation ($n = 2$), the mediation variable (congregational neglect; $n = 2$), and English language use ($n = 1$) were also excluded. The foregoing filters yielded an analytic sample of $n = 936$.

This study focused on an analysis of anxiety due to its differential relationship with religious attendance in U.S. South Asians compared with other mental health outcomes, as well as research in other populations [9, 11, 12]. Anxiety was assessed as a continuous variable using the Spielberger [38] trait anxiety scale (10 items; range 10–40; $\alpha = 0.70$). Religious service attendance frequency was measured as never/rarely, once a month, 2–3 times per month, weekly, and several times per week. Congregational neglect measured whether respondents felt ignored or neglected by their religious congregation. This item was coded as 1 = once in a while or more vs. 0 = never.[5] Covariates included age (in years), female (1 = yes), marital status, educational attainment, English language use, anti-depression/anti-anxiety medication use (1 = yes), and religious affiliation (Hindu [reference group], Muslim, Sikh, other religion, and unaffiliated). Study variable summary statistics are shown in Table 1.

Table 1 Descriptive statistics for study variables, MASALA study (2010–2018)

	Mean/Prop.	*SD*	Min.	Max.
Anxiety	15.84	4.25	10	36
Religious attendance	3.84	1.02	2	6
Congregational neglect	0.09	0.29	0	1
Age	61.04	8.87	44	89
Female	0.46	0.50	0	1
Married	0.89	0.31	0	1
Not married	0.07	0.26	0	1
Indeterminate marital status	0.03	0.18	0	1
Educational attainment	4.35	0.98	0	5
English language use	3.08	1.22	1	5
Medication use	0.04	0.19	0	1
Hindu	0.61	0.49	0	1
Muslim	0.08	0.27	0	1
Sikh	0.05	0.23	0	1
Other religious affiliation	0.16	0.37	0	1
Unaffiliated	0.10	0.29	0	1

$N = 936$; Prop., proportion; *SD*, standard deviation; Min., minimum; Max., maximum

Analytic Method

The study used path analysis, adjusting for potentially confounding variables (i.e., socio-demographic covariates and respondents' use of medication related to anxiety). In assessing mediation, the analysis focused on the significance of indirect effects, a Sobel mediation test,[6] and calculated the proportion of the effect of attendance on anxiety mediated by congregational neglect. Postestimation tests assessed estimates and *p*-values for direct and indirect effects (i.e., effects

[4] The age eligibility screening may not match the age at which the study questionnaire was administered.

[5] Originally, a 4-point variable ranging from never to very often, it was dichotomized due to data sparseness in the top two categories ("often" and "very often").

[6] We use the Aroian version of the Sobel test recommended by Baron and Kenny [39].

of religious attendance via congregational neglect). We also examined standardized coefficients to compare magnitude of effects among explanatory variables. Analyses were conducted in Stata 16.1 [40].

To provide greater detail regarding the stages of the path analysis, it is comprised of several stages as follows. First, in model 1, we assess whether religious attendance is significantly associated with anxiety, adjusting for covariates but excluding congregational neglect. Second, in model 2, we examine whether religious attendance is significantly associated with congregational neglect, adjusting for covariates. Mediation can be examined further if religious attendance is significantly associated with both anxiety in model 1 and congregational neglect in model 2. Third, in model 3, we add congregational neglect as a predictor to model 1 and examine whether there is attenuation in the association between the religious attendance and anxiety. Finally, to evaluate the amount of mediation, we compute the proportion of the religious attendance effect mediated by congregational neglect. Models show direct effects of religious attendance on anxiety as well as indirect effects of religious attendance on anxiety via congregational neglect.

Results

Table 2 presents path analysis results. All models adjust for covariates. Model 1 shows the relationship between religious attendance and anxiety while excluding congregational neglect. The coefficient for religious attendance indicates a statistically significant positive association with anxiety ($b = 0.325$; $p < 0.05$), indicating that increased religious attendance is associated with higher levels of anxiety. Standardized betas indicate the relative magnitude of effects among predictors in the model; the standardized coefficient for religious attendance is the third largest in the model ($\beta = 0.078$), just after medication use ($\beta = 0.149$), and being unmarried ($\beta = 0.093$).

Model 2 examines the relationship between religious attendance and congregational neglect. Here, too, religious attendance has a statistically significant and positive association with the outcome ($b = 0.057$; $p < 0.001$), in this case, congregational neglect. Whereas in model 1, the magnitude of the effect of religious attendance is among the largest in the model, religious attendance has by far the largest effect in model 2 ($\beta = .2$), twice as large as the next largest ("other" religious affiliation, $\beta = 0.1$).

Model 1 shows that a significant association is found between religious attendance and anxiety ($b = 0.325$; $p < 0.05$). In model 3, this association decreases notably and is reduced to non-significance ($b = 0.237$; $p > 0.05$) when congregational neglect ($b = 1.54$; $p < 0.01$) is included as a mediator. Also seen in model 3, the analysis estimating the indirect effects of religious attendance via congregational neglect demonstrates a significant mediation of the association between religious attendance and anxiety ($b = 0.088$; $p < 0.01$). The results of the Sobel test ($z = 2.73$, $p < 0.01$) confirm that congregational neglect partially mediates the relationship between religious attendance and anxiety. A calculation of the proportion mediated indicates that congregational neglect mediates 27.2% of the religious attendance effect on anxiety—a sizable share. Finally, in comparing the relative importance of the predictors in model 3, congregational neglect has the largest effect size ($\beta = 0.106$), with the exception of anti-depression/anti-anxiety medication use ($\beta = 0.139$).

Discussion

This study investigated the mediating role of congregational neglect in the relationship between religious service attendance and anxiety among U.S. South Asians. The results indicated that congregational neglect significantly mediated the relationship, and the mediation was considerable—congregational neglect mediated almost one third of the association between religious attendance and anxiety. It is also noteworthy that congregational neglect had the second strongest association with anxiety of any predictor in the study; only medication use had a stronger association.

The findings of this study contribute to the growing body of research on religion and health among ethnic and racial minorities in the USA [5]. Previous community-based studies, predominantly using majority-White samples from the USA, found that religious attendance was generally linked to favorable mental health outcomes, including anxiety [12].[7] However, the current study provided further evidence that this relationship may not be unequivocal for U.S. South Asians, who experienced higher levels of anxiety with increased frequency of religious service attendance [9, 11]. This relationship is also substantial; before considering congregational neglect, religious attendance had the third strongest association with anxiety out of any predictor in this analysis of U.S. South Asians.

Furthermore, this study advanced our understanding of the positive relationship between religious attendance and anxiety among U.S. South Asians [9, 11]. These findings elucidated how increased religious attendance might lead to elevated anxiety by documenting the sizable mediating role played by congregational neglect in that association. We surmised that high levels of cultural diversity within U.S. South Asian religious communities make congregational

[7] Some forms of private religious practice such as prayer for support are associated with greater anxiety in the general U.S. adult population [41].

Table 2 Estimates from linear mediation analysis

	M1: anxiety				M2: congregational neglect				M3: anxiety			
	b	*SE*		*β*	*b*	*SE*		*β*	*b*	*SE*		*β*
Direct effects												
Congregational neglect									1.540	0.479	**	0.106
Religious attendance	0.325	0.156	*	0.078	0.057	0.011	***	0.200	0.237	0.158		0.057
Age	− 0.040	0.016	*	− 0.083	0.000	0.001		0.002	− 0.040	0.016	*	− 0.083
Female	0.366	0.284		0.043	0.011	0.019		0.018	0.349	0.283		0.041
Marital status												
Married	Ref.				Ref.				Ref.			
Not married	1.510	0.535	**	0.093	0.044	0.036		0.040	1.442	0.532	**	0.089
Indeterminate status	1.001	0.760		0.043	0.098	0.052		0.061	0.849	0.757		0.036
Educational attainment	− 0.290	0.150		-0.066	− 0.009	0.010		− 0.029	− 0.277	0.149		− 0.063
English language use	0.174	0.128		0.050	− 0.003	0.009		− 0.014	0.179	0.128		0.051
Medication use	3.338	0.718	***	0.149	0.143	0.049	**	0.093	3.117	0.717	***	0.139
Religious affiliation												
Hindu	Ref.				Ref.				Ref.			
Muslims	0.003	0.531		0.000	− 0.049	0.036		− 0.045	0.078	0.528		0.005
Sikh	0.009	0.610		0.000	0.023	0.041		0.018	− 0.026	0.606		− 0.001
Other	0.371	0.383		0.032	0.079	0.026	**	0.100	0.249	0.383		0.022
Unaffiliated	0.068	0.506		0.005	− 0.012	0.034		− 0.013	0.087	0.503		0.006
Indirect effects												
Religious attendance									0.088	0.032	**	
Age									0.000	0.002		
Female									0.017	0.030		
Marital status												
Married									Ref.			
Not married									0.068	0.060		
Indeterminate status									0.151	0.092		
Educational attainment									− 0.013	0.016		
English language use									− 0.005	0.014		
Medication use									0.221	0.102	*	
Religious affiliation												
Hindu									Ref.			
Muslims									− 0.075	0.060		
Sikh									0.035	0.065		
Other									0.122	0.055	*	
Unaffiliated									− 0.019	0.053		
Total effects												
Congregational neglect									1.540	0.479	**	
Religious attendance									0.325	0.156	*	
Age									− 0.040	0.016	*	
Female									0.366	0.284		
Marital status												
Married									Ref.			
Not married									1.510	0.535	**	
Indeterminate status									1.001	0.760		
Educational attainment									− 0.290	0.150		
English language use									0.174	0.128		
Medication use									3.338	0.718	***	
Religious affiliation												
Hindu									Ref.			
Muslims									0.003	0.531		
Sikh									0.009	0.610		
Other									0.371	0.383		
Unaffiliated									0.068	0.506		

$N = 936$; *M*, model; *b* = unstandardized coefficient; *SE*, standard error; β = standardized coefficient; *ref.*, reference group; coefficients less than 0.001 are shown as 0.000; ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$

neglect more likely. This study moved beyond description of patterns by assessing and pointing to social processes and mechanisms that underlie an empirical relationship.

More broadly, previous research on the "dark side" of religion has shown that negative religious interactions and stressful congregational experiences can have deleterious effects on mental health [18]. This study added to this literature by highlighting the importance of congregational neglect, a form of negative communal religious experience that has been understudied in population-based research on religion and mental health, particularly among minority populations. It is noteworthy that all of the participants in the current study attended religious congregations, at least sometimes. Although "never" attending was provided as a response option to MASALA participants, not a single participant out of 989 selected this response option. The high level of attendance at religious congregations among MASALA participants was noteworthy given that 26% of adults in the general U.S. population report never attending religious services.[8] Ellison and Sherkat [42] advanced the "semi-involuntary institution" thesis to describe how social sanctions and the concentration of social resources and functions in religious institutions can lead to widespread levels of communal religious participation in a population. The thesis was developed to describe southern African American religiosity, but it was also extended to immigrant communities and other populations [43, 44]. The thesis' mental health relevance stems from prior findings that individuals who exhibit extrinsic religiosity experience higher levels of anxiety, while intrinsic religiosity does not show the same association [45]. Researchers have found that South Asians report participating in religious gatherings, ceremonies, and services due to cultural or familial responsibility or as a sacred duty [24, 46]. Nationally, among Indians who affiliate with a religion, 32% report that, for them, being (Hindu, Muslim, Sikh, etc.) is mainly about culture or ancestry and not about religion per se.[9] If extrinsic religiosity often characterizes U.S. South Asians' congregational participation, they may have high susceptibility to anxiety-producing aspects of congregational experiences such as neglect. Future research should examine whether the effects of neglect are moderated by intrinsic religiosity.

The findings of this study have important implications for religious leaders and clinicians. Religious leaders should be aware of the potential negative effects of congregational neglect on mental health outcomes and can take steps to create welcoming and inclusive environments that better address the needs of all congregants. Culturally non-dominant groups in religious congregations are likely at an increased risk for exclusion and neglect [32]. One way neglect could be mitigated is through intentionality regarding regional, linguistic, and sectarian diversity in congregational boards, festivals, and visible aspects of congregation facilities (e.g., use of languages other than Hindi/Urdu when non-English language is displayed in South Asian congregations). Additionally, congregations will better-serve their constituents if they can more actively seek the input of those more likely to experience neglect. When engaging in fundraising campaigns, for example, congregations are often purposed in gathering feedback in a variety of ways (e.g., comment boxes, focus groups, and surveys). Similar methods could be used to proactively understand congregants' experiences of neglect and how those might be patterned within a congregation so as to put measures in place to make improvements and help prevent further neglect.

Implications for clinicians can also be drawn from this study's findings. Administration of a brief spiritual inventory has been suggested for clinical settings, as appropriate, while respecting patients' religio-cultural backgrounds [47]. If a patient identifies as a religious adherent in the inventory, a simplistic implication would be that clinicians would then suggest that such adherents engage in religious attendance within their faith community as a way of accessing socio-religious resources salutary for mental health. The current study complicates such an approach to clinical practice and aligns with recommendations that clinicians should ascertain "whether religion is an asset or a liability for a particular patient" [13]. Specifically, our results suggest that clinicians use caution when interpreting the results of any religious/spiritual inventory among U.S. South Asians. A more complete picture could be gained with a spiritual inventory that enquires about the nature of one's experiences with religious congregations, including negative experiences such as neglect. At the least, clinicians can also consider the potentially divergent impacts of religious involvement on the mental health of diverse populations.

This study has several strengths and limitations that should be considered when interpreting findings and planning future research. First, this cross-sectional study made an important contribution to research on religion and mental health by examining an unstudied process at the intersection of religious involvement and anxiety. Nevertheless, the cross-sectional design clearly limited the ability to establish causality. Longitudinal studies are needed to confirm the mediating role of congregational neglect in the relationship between religious service attendance and anxiety. Second, this study is among the few to analyze congregational neglect in the context of a community-based probability sample. Nevertheless, measurement relied on a single item. More study is needed to understand what people

[8] Author calculation from cumulative waves of the General Social Survey (2010–2018) concurrent with the MASALA study years.

[9] Author calculation from the Pew India Study, 2019–2020.

mean by congregational neglect and what forms it takes. Third, this study theorizes, but does not directly measure, a process whereby high levels of diversity within South Asian religious congregations lead to neglect. Growing research has studied multicultural churches [33, 48]; similar studies are needed on temples, mosques, and gurudwaras in the U.S. to understand internal diversity within these entities. Fourth, the use of a community-based sample is a critical advancement over small convenience samples used in some prior research, and the communities sampled (i.e., San Francisco Bay area and Chicago area) are among the top population centers for South Asians in the U.S. Nonetheless, the sample was not national, and results cannot be generalized to all U.S. South Asians. A national study of religion and health in U.S. South Asians is needed. Finally, the study focused on U.S. South Asians, an understudied group. However, this focus, while addressing an important need, at the same time, limits the generalizability of the findings to other ethnic and racial minority populations. Future research should examine the relations among religious attendance, neglect, and anxiety among a variety of ethnic and racial populations.

In conclusion, this study provides evidence that congregational neglect plays an important mediating role in the association between religious attendance and anxiety among U.S. South Asians. These findings offer implications for religious leaders and clinicians and highlight the need for further research on the impact of communal religious participation on mental health outcomes among ethnic and racial minority populations in the United States.

Data Availability MASALA data can be requested via masalastudy.org.

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