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Perceived Stress and Religious Coping among Pakistani-Origin Emerging Muslim Adults Living in Pakistan and the United States: A Cross-Cultural View

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ABSTRACT

This study explored the relationship between Perceived Stress and Religious Coping levels among Muslim emerging adults of Pakistani origin living in Pakistan and Muslim emerging adults of Pakistani origin living in the United States (US). Participants (Pakistani Origin Muslims Living in Pakistan, n= 103; and Pakistani Origin Muslims Living in the US, n=50) were between 18-25 years old. The Perceived Stress Scale (PSS-10) and Brief R-Cope scale were administered using an online format. Results indicated that negative religious coping strategies were associated with higher perceived stress in both groups while positive religious coping strategies showed a weaker association with lower perceived stress levels, and this finding appeared only in the US sample. Marital status was also an important predictor of perceived stress. These findings demonstrate that Muslim emerging adults, irrespective of culture, show moderately similar patterns in their perception of stress and their utilization of religious coping strategies.

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Introduction

Stress and the Emerging Adult

Stress has been defined as a state and feeling in response to hardship, adversity, or affliction that impacts an individual's well-being [1]. World Health Organization (WHO) has declared stress as the World Health Epidemic of the 21st century because of its devastating effects on the emotional and mental health of individuals. Recent studies conducted in the U.S and Pakistan indicate that about 50% of the student population has experienced significant stress [2].

Emerging adulthood—typically defined as the years between ages 18 and 25—has been identified as a developmental stage that is particularly stressful [3,4]. During this developmental period, significant and unique changes occur in the individual's life, including: identity exploration, instability, new self-focus, feeling "in-between," and assuming new responsibilities. In addition, ideas related to love, work, and forming a worldview are explored. Later in life when individuals consider the most formative events in life, they often refer to this developmental stage [5].

Stress occurs when people confront situations that exceed their ability to manage them [6], and a typical response is to overcome, manage, and regain control over the situation. The way in which people do so refers to the concept of coping. The examination of coping processes during emerging adulthood is particularly important because individuals often find themselves in new roles and contexts and, therefore, must learn to deal effectively with these challenges [7]. Moreover, many psychological disorders emerge during this transition into adulthood, and poor coping skills likely play a role in their development and maintenance [8]. For example, seeking informal advice rather than professional help is a common practice among emerging adults, many of whom develop various negative coping strategies that might include addiction, self-harm, and toxic relationships [9].

The Role of Religious Beliefs

Religious beliefs have been identified as one means of providing a possible coping resource during hard times. Pargament (1997) suggested religion as a process of searching for significance in ways related to the sacred, with religious coping involving searching for meaning in stressful times. Specifically, religious coping utilizes

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beliefs to actively and dynamically help people find, maintain, and transform their lives according to the sacred [10]. However, religious coping may be either positive or negative. Generally, positive religious coping strategies (e.g., reinterpreting the stressor as salutary, treating the deity as the partner, seeking and appreciating God's love and care) demonstrate a secure connection and bond with the transcendent force, a sense of a spiritual relationship with others, and a compassionate world view. Hence, these strategies are likely to be useful for many religious individuals coping with stress. In contrast, negative religious coping approaches (e.g., reinterpreting the stressor as a punishment from God, passively depending on the deity to resolve the stressor, attempting to cope on one's own without relying on God's help) reflect 'underlying spiritual tensions and struggles within oneself, with others, and with the divine' [11]. As such, this form of religious coping is more likely to create a negative impact on individuals.

For young Muslim adults, religious identity and the use of religious teachings markedly influence their development and identity formation. Because of this, the dynamics surrounding self-identity, self-image, and mental health tend to differ from those of emerging adults belonging to other religious and cultural backgrounds. Thus, such coping skills may be used in a beneficial manner to regulate depression, anxiety, and stress, as demonstrated in one study on college students [12].

In Pakistan, research on university students (age 20-28 years) suggests that the use of positive religious coping strategies is associated with higher levels of religious motivation and interest, and is negatively related to depression [13]. Research in New Zealand found that international Muslim students used more positive and negative religious coping methods compared to domestic students due to the former's higher levels of spirituality/religiousness. When positive religious coping skills were used, the Muslim students reported higher quality of life and lower distress [14] whereas the use of negative religious coping skills was associated with higher distress [15].

Cross-Cultural Variation

Religious differences often co-vary with cultural differences, so the role of different cultural environments cannot be disregarded as a confounding or contributing factor. The resource-congruence model supports the idea that one's internalized cultural values, beliefs, and norms affect the perception, evaluation, and appraisal of life stressors, with the person's beliefs and values influencing their coping style [16].

Two very broad and distinctive cultural categories include the individualistic culture and the collectivistic culture. As examples, cross cultural research has shown high levels of perceived stress and negative dispositions in individuals belonging to Japanese (collectivist) vs British (individualistic) cultures [17], partly related to the distinctive ways that those in different cultures deal with stressors. Turkish students use more active and emotional focused coping strategies whereas US students use avoidant styles, including substance use and socialization strategies [18,19].

Specific to the current study, which compares Pakistani and Pakistani-US participants, the US supports an individualistic culture [20] while Pakistan supports a more collectivistic culture [21]. As an Islamic state with nearly 97% of Pakistanis being Muslim, the country (Census, 2017) has collectively similar religious and cultural values, which includes high levels of religiosity that influences various aspects of their life. At the same time, Islam is the fastest growing religion in North America and while only at 1-2% of America's current population, it may be on track to becoming the second most practiced religion in the US after Christianity [22]. Further, a number of these migrant Muslims are Pakistanis, with the Pakistani Muslim population increasing from 204,000 in 2000 to 415,000 in 2015, hence doubling within just 15 years [23]. This distribution of Pakistanis—a population derived from a collectivistic culture—in the US, a culture known for its emphasis on individualism, thus provides a unique opportunity to examine the effects of religious coping in these two different types of cultures.

Pakistani college students tend to experience high levels of stress related mostly to academic and psychosocial concerns, the latter including high parental expectations, sleep issues, loneliness, and worry related to their future prospects [24]. In the US, studies indicate that American Muslims have been facing a level of religious discrimination that surpasses any other religious group. Such conditions leave Muslim young adults living in US openly vulnerable to religious discrimination [25] which, in turn, can be associated with depression, anxiety and the use of alcohol. Despite an Islamic taboo against the use of alcohol and drugs, Muslim young adults are common users [26]. Hence, Muslim young adults residing in the US often retain close cultural ties to their roots yet nevertheless eventually come to grapple with questions of faith, cultural conflict, and an ever-increasing pressure to conform to Western societal expectations. As such, some Pakistani-US individuals may explore alternative belief systems and/or adopt a more individualistic approach to religion, leading to less reliance on their typically engrained religious coping strategies [27]

Objectives of the Present Research

The current research explored the relationships between positive and negative religious coping and perceived stress in emerging adults born and raised in Pakistan as well as a counterpart group consisting of Pakistani emerging adults who have been reared in the US, where a very different set of cultural principles are supported. Specifically, the research pursued four objectives:

1. To determine similarities and differences in perceived distress, positive religious coping, and negative religious coping between Pakistani and Pakistani-US participants.
2. To explore the relationship between religious coping strategies on perceived distress in a population of young Muslim adults.
3. To assess demographic differences between the two samples so such covariates might be controlled in the analysis that included Pakistani and Pakistani-US participants.
4. To determine, using regression analysis, the relative effects of religious coping strategies on perceived distress in the two different populations while controlling for possible confounding covariates.

Materials and Methods

Research Design and Recruitment

The study used a survey design where participants were selected on the basis of living either in Pakistan or in the U.S. The sample was recruited using purposive convenience sampling along with snowball sampling to ensure a sufficient sample size for the two target populations. These procedures were supplemented with social media platforms including Facebook and WhatsApp groups in both the US and Pakistan. For the US based population, a post was generated where the research aims and criteria were provided, including the focus on emerging adults of Pakistani origin residing in the US. The target population responded to the post and each was then contacted individually on Facebook messenger.

Participants

A total of 153 emerging male and female adults (age range of 18-25 years) were included. 103 participants were from Pakistan, 50 from various cities of the USA. Inclusion criteria were identification with Islamic religion and having Pakistani origin. Pakistani origin was defined as having parents who were born/migrated and brought-up (spending their majority life) in Pakistan, hence having ethnic roots of Pakistan. Participants living in Pakistan (born/brought-up in Pakistan) and US (born/brought-up in US) formed the comparison groups.

Instruments

Participants completed the following forms, all provided in English:

Informed consent form (English). Participation in the study was voluntary and participants were assured of confidentiality. Participants were also thoroughly briefed about the purpose and demand of the research in this form. Participants provided written informed consent prior to taking part in the study.

Demographic form. The demographic form collected information regarding the individual's age, country, gender, education level, marital status, and immigration details.

Perceived Stress Scale-10 (PSS-10). This 10 item scale measures global stress, evaluating the extent to which individuals perceive their lives to be "unpredictable, uncontrollable and over loading" [28]. A 5-point Likert-scale, 0 (Never) to 4 (Very Often), was used to rate the frequency of feelings and thoughts about life events and situations, using the past one month as a timeframe. The PSS-10 interpretation is as follows: 0-13 being "Low stress;" 14-26 "Moderate stress," and 27-40 "High stress".

R-COPE. The Brief RCOPE is a 14-item measure of the use of religious coping to deal with major life stressors [29]. The instrument has two subscales: 7 items of "positive religious coping" and 7-items of "negative religious coping." Participants indicate the extent to which they use particular religious methods of coping with a negative event on a 4-point scale ranging from 0 "not at all" to 3 "a great deal."

Procedure

An online form using Google-Documents was used to create a consolidated packet which included the Consent form and all other response forms. Data were collected from and through Muslim families of Pakistani origin living in the cities of Baltimore and Dallas in the US. Each identified participant was contacted individually via instant messaging and was provided details regarding the study. Debriefing, confidentiality, and purpose of the study were explained prior to requesting consent. Upon written consent, the online research packet was made available. Participants' recorded responses were then uploaded to SPSS (version 22) for analysis.

Ethical Consideration and Informed Consent

Data collection was done primarily online using social media platforms to connect with the target population. To assure confidentiality and that each participant consented voluntarily, each was approached separately on their personal WhatsApp number or Facebook account. They were informed about the purpose of the study, confidentiality, and withdrawal rights, and were provided with the consent form. The form had options of "I agree" and "I disagree" so that participants could freely decide their preference for continuation or discontinuation in the research. Accessibility to the study was available only after the agree option was selected. Anyone who disagreed was immediately guided to the end of the study and the procedure was discontinued.

Results

Preliminary comparisons across Pakistani and US groups.

An initial comparison was made to determine whether the two groups, Pakistani and Pakistani-US, were similar on the major study and demographic variables (Table 1). No significant differences emerged between groups on study variables, indicating that the two groups were similar in their religious coping and perceived stress scores.

However, these analyses also show that gender was not distributed uniformly across the two groups and, furthermore, that education level was significantly higher in the Pakistani group compared with the US group.

Table 1. Comparison of study variables among emerging adults of Pakistani Origin living in either Pakistan and US

	Pakistan (*n*=153)		**US** (*n*=50)		
Variable	M	SD	M	SD	p
Stress	20.54	5.86	18.88	6.81	0.29
Positive religious coping	6.22	1.32	6.16	1.48	0.40
Negative religious coping	2.06	2.06	1.82	2.18	0.09
Age	5.27	2.33	5.22	2.38	0.88
Gender	1.81	.391	1.69	0.46	0.07
Marital status	1.44	.765	1.53	0.92	0.53
Education Level	2.38	.912	2.08	0.79	0.04

Note. CI= Confidence interval, M= Mean, SD= Standard Deviation, df= degree of freedom, p= Significance

Relationships among study variables and (separately) demographic variables

To check for the correlation between Perceived Stress and Religious Coping and other demographic variables, Spearman correlations were conducted, yielding the following results (Table 2). Negative religious coping and marital status were significantly correlated with stress.

Table 2. Spearman Correlations of Stress with Religious Copings and Demographic Variables in Muslim Emerging Adults (N=153)

Correlational Variables	**Rho Value (r_s)**	**p-*Value***
Positive Religious Coping	-0.13	0.10
Negative Religious Coping	0.44**	0.00**
Country	-0.11	0.12
Age	-0.09	0.25
Gender	0.07	0.35
Education	-0.04	0.96
Marital status	-0.19*	0.01*
Immigration	0.12	0.96

Note. * p< 0.05, ** p <0.01, *** p<0.001

Table 3 shows the same correlations but this time for the two groups (Pakistan and US) separately. This analysis identifies two apparent differences between Pakistani and US groups in the strength of correlations: Negative religious coping was more strongly correlated with stress in the US group than the Pakistani group; and marital status was more related to stress in the US than Pakistani group.

Table 3. Spearman Correlations of stress with study variables and demographic variables in the Pakistani (n = 103) and US groups (n = 50)

Correlational Variables	Rho Value (rs) **Pakistan**	Rho Value (rs) **United States**
Positive Religious Coping	-0.02	-0.29*
Negative Religious Coping	0.39**	0.54**
Age	-0.08	0.07
Gender	0.04	0.10
Education	-0.04	0.01
Marital status	-0.12	0.33*
Immigration	0.04	0.16

Note. * p< 0.05, ** p <0.01, *** p<0.001

Multivariate Regression Model of Predictors of Perceived Stress

Based on the above analysis, four covariates were entered into the regression model to determine which factors significantly predicted perceived stress. These covariates were: positive religious coping, negative religious coping, marital status, and country-of-origin.

Both positive and negative religious coping were significantly associated with perceived stress levels of emerging adults (p<0.05). Specifically, negative religious coping was positively and more strongly associated with stress, that is, greater negative religious coping was associated with greater perceived stress. In contrast, positive religious coping was significantly associated with lower levels of perceived stress.

Overall, marital status was significantly associated with perceived stress; specifically, being married was associated with lower perceived stress (or alternatively, being unmarried was associated with higher perceived stress). When this factor was controlled, the country in which the participant was residing was not a significant predictor of perceived stress. Together, these three variables predicted nearly 24% of the variance in perceived stress.

Table 4 presents the Linear Regression Analysis of Perceived Stress and Significant variables between Muslim Emerging Adults.

Table 4. Linear Regression Analysis of Perceived Stress and Significant variables between Muslim Emerging Adults (N=153)

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	F	R	R^2
	B	Std. Error	Beta					
(constant)	25.776	2.579		9.993	.000	11.48	0.48	0.237
Country	-1.184	.947	-0.090	-1.251	.213			
Marital Status	-1.458	.546	-0.192	-2.671	.008			
PRC	-.733	.325	-0.162	-2.255	.026			
NRC	1.260	.230	0.395	5.482	.000			
Dependent Variable: STRESS, Predictors: (Constant), NRC, PRC, Marital Status, Country								

Discussions

This study collected data from Pakistani origin Muslim emerging adults from two countries, Pakistan and the US. The level of perceived stress of emerging adults for this sample was in the moderate range (M= 20.5 and M= 18.9 for the Pakistani and US samples respectively). These moderate levels suggest that, overall, participants were quite effective in managing stressful situations.

The Stress and Vulnerability Integration (SAVI) model highlights age-based strengths that might affect responses towards stressful experiences in life. Specifically, the model suggests that despite having multiple stressors, this age group is generally able to overcome and deal with them effectively [30]. However, these effects are mitigated in part by cultural context; for example, research on undergraduate South Asian American (Bangladeshi American, Indian American, and Pakistan American) students indicated lower levels of hopelessness, stress, and suicidal ideation among Pakistani emerging adults compared with other Asian-American counterparts [31]. Thus, Pakistani Muslim emerging adults, despite living in foreign countries and different cultural milieus, reported lower levels of stress than their counterparts. Interestingly, Pakistanis and US-Pakistanis had similar levels of perceived stress, as demonstrated both above and in a related case study [32].

The moderate levels of perceived stress suggest fairly effective coping mechanisms in these emerging adults. To verify this assumption, the role of religious coping was assessed among Muslim emerging adults in the current research. Previous research had supported high levels of positive religious coping (PRC) in Pakistani students, with a similarly high level was typical of Pakistani students in the current research. These results are consistent with Lowenthal's study on the role of religious factors among different cultural-religious groups in the UK, which found that Muslims were more likely to use positive religious coping techniques than other religious-cultural groups and were least likely to seek social or professional help regarding mental health issues [33].

The age group associated with emerging adulthood tends to be associated with high levels of distress and, universally, individuals having a negative relationship with their deity figure typically report higher levels of psychological issues [34]. However, negative religious coping (NRC) was low in Pakistani participants in both Pakistan and the US. Thus, while higher levels of negative religious coping are associated with higher levels of distress, Muslims across the globe tend to exhibit low levels of NRC and, thus less psychological distress [35]. In brief, then, the current study found that positive religious coping tended to be high in emerging Muslim adults, negative religious coping comparably low, and these patterns were similar in both Pakistani and US-Pakistani samples. Such patterns are not surprising, as Islamic teaching emphasizes the use of religion to help individuals accept their condition, to re-evaluate and redefine negative events, and to provide a positive interpretation of distressing life events [36].

The second aim of the research was to identify relationships between positive and negative religious coping and perceived stress. Previous meta-analysis has shown that PRC is associated with overall lower levels of stress, while its counterpart, NRC, has been linked to increased anxiety symptoms [37]. In the current research, PRC, although found to be high, was not strongly related to their stress levels. Interestingly, similar findings were obtained when the brief R-COPE Urdu version was administered to Pakistani university students in that, despite a strong alpha reliability coefficient for the PRC subscale, it was not significantly associated with anxiety or

depression [13,38]. An explanation for this might be that even though religious practices are strictly followed in many of Pakistani households, using religious strategies as a way of coping with stress (or other psychological challenges) is often not overtly modeled or discussed, as topics related to mental illness are generally stigmatized and/or considered taboo. Therefore, a lack of recognition of the value of positive religious coping as a possible life strategy may explain why Pakistani emerging adults rarely use, much less try to improve, such coping approaches [39].

Comparing across groups from different countries, only the US-Pakistani group showed an association between PRC and stress, and this correlation was fairly weak (r= 0.29). This finding suggests that when living in a foreign culture, emerging adults may be more likely to turn to religion for comfort and support than do those living within a more familiar culture, a difference likely in part to have resulted from a typical practice among US-Pakistani Muslims that intentionally promotes the use of religious faith as a way of dealing with and overcoming stress [35].

For both Pakistani and US samples, the association between negative NRC and stress was moderate to fairly robust, with a stronger relationship in the US-Pakistani group. A similar pattern has been noted for Pakistani university students, where NRC was positively related to greater feelings of personal distress and defeat [38]. Similar to the finding with Pakistani emerging adults, American emerging adults using negative religious coping are also more likely to exhibit psychological stress, findings that also align with a report that psychological patients in the US with no spiritual connections were also more likely to have complaints of distress and depression [39].

The third aim of the research was to identify relevant covariates that might also serve as predictor or confounding variables related to perceived stress. In fact, independent of country, single individuals had higher levels of perceived stress compared to married individuals, and this relationship was significantly stronger in the American sample (Table 3). Such findings reiterate the longstanding assumption that individuals in this age group find comfort in having a trustworthy partner beside them during times of stress, and physiologically manifest this through their lower levels of stress hormones [40]. The fact that this correlation was much higher in the US-Pakistani group suggests that such partnerships may be particularly important as individuals negotiate their way through less familiar cultural environments [40].

Finally, for a more holistic view of the way in which these variables act together, regression analysis that included the three significant predictors of perceived stress as well as country of residence—marital status, PRC, NRC, and Pakistani vs US-Pakistani—was used to assess the relative contribution of each. Together, these variables accounted for nearly 28% of the variance in perceived stress, with three of the variables being significant.

Findings from the regression analysis indicate that while both positive and negative religious coping affect perceived stress, negative religious coping is more detrimental than positive religious coping is beneficial. Moreover, unmarried individuals, no matter their coping practices or country of residence, have higher distress than married counterparts. Interestingly, while cultural differences between the two countries are large, the present research reflects no significant differences in this respect. Emerging adults having ethnic roots in Pakistan are similar in terms of perception of stress despite living in vastly different cultural environments. Thus, many first- or second-generation immigrants, despite identifying with American culture, consider linkage to their religious identity as essential [41]. This idea aligns with the theory of "cultural transmission in socio-cultural minorities in a foreign cultural environment," which suggests that minorities are more likely to hold onto their faith as a means of support in foreign environments. Hence, Muslim emerging adults living in US were more likely to use religious coping to help reduce their stress, compared to Pakistani Muslim emerging adults. Recent cross-cultural research has identified no significant differences between Pakistani emerging adults in the two countries, presumably the result of globalization that has created a new and identifiable class of individuals who belong to an emergent global culture [42].

Limitations

Religiosity and religious coping may serve as important foundations for coping with life's problems for many individuals [29]. This research suggests that such ideologically based approaches may represent effective tools in some cultures for helping individuals deal with distress. In addition, having a marital partner may help mitigate the stress.

The current project was limited by the highly selective sample, comprising a comparison across only two countries. Origin from other countries or using multiple country comparisons would provide a more comprehensive view of the role of religious coping across. In addition, the research measured perceived stress without identifying the nature of the distress. The source of the perceived stress could be an important factor in terms of the role that religious coping might play, for example, whether that source is perceived as being within or beyond the control of the individual. Furthermore, this research did not take into consideration pre-existing physical or psychological traits of the participants, for example, levels of resilience, religiosity, etc. Finally, the current study, while attempting to statistically control for various demographic variables, did not assess and account for other possible confounding covariates.

Conclusions

The findings of the study show only minor differences across the two study samples originating from different cultural contexts. Moderate levels of perceived stress and high levels of positive religious coping were characteristic of participants in both countries, but the strongest relationship was found between Negative Religious Coping and Perceived Stress levels in both countries.

As a final conclusion, Pakistani origin Muslim Emerging Adults were similar to each other irrespective of living in different countries/cultures in terms of their perception towards stress and use of Religious Coping Strategies.

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Compliance with ethical standards

Any aspect of the work covered in this manuscript has been conducted with the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript.

Conflict of interest disclosure

There are no known conflicts of interest in the publication of this article. The manuscript was read and approved by all authors.

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