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Relationship Between Spirituality and Mental Health Conditions Among Undergraduate Students

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The benefits of spirituality on physical and emotional well-being have been acknowledged among different populations. To explore this further, the current study was conducted to examine how spirituality (spiritual support and openness) impacts mental health conditions such as depression and anxiety among undergraduate students. The research used a quantitative design and recruited 190 participants (136 men and 54 women) through convenience sampling. Participants were requested to complete a simple demographic questionnaire, Spiritual Experience Index - Revised (Genia, 1997), Beck Anxiety Inventory (Beck et al., 1988a), and Beck Depression Inventory (Beck et al., 1961). Findings reported a significant negative correlation between spirituality and depressive symptoms ($p < 0.01$). Gender differences were also noted in spirituality and depression levels within the sample, with spirituality emerging as a significant negative predictor of depressive symptoms. Additionally, this study emphasizes the importance of spirituality in maintaining mental health and encourages mental healthcare professionals to consider the therapeutic value of spirituality. The implications of the study's findings on the relationship between spirituality and mental health among undergraduate students are also discussed.

Keywords. Spiritual support, spiritual openness, anxiety, depression

Spirituality is increasingly recognized for its positive influence on both physical and emotional health, resilience in facing health-related challenges, and its significant role in holistic wellness in the modern world (Cook & White, 2018). Burke et al. (1999) define spirituality as

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a feeling of being linked to a supreme force and having an open-minded attitude toward the limitless possibilities beyond human existence and understanding. For numerous people, spirituality holds great importance as it is deeply rooted in their history, culture, and self-understanding, consequently exerting a considerable influence on personal identity and frameworks of meaning at both an individual and societal level (Cook & White, 2018). Therefore, integrating clients' religious or spiritual beliefs into psychotherapy holds the potential to influence both the processes of change and the outcomes of treatment (Captari et al., 2018). Another study highlights that numerous patients, for whom religion or spirituality is a significant component of their identity, express a desire for their therapist to incorporate these beliefs and values into the psychotherapeutic process (Vieten et al., 2013). However, many healthcare providers do not view spirituality as a favorable influence on mental health and instead perceive it to have an adverse impact. According to a survey conducted by Foskett et al. (2004), 45% of healthcare professionals held the belief that spirituality could potentially cause mental illness, whereas 39% had the opinion that religion might work as a preserving factor against such conditions. This uncertainty of relationship is caused because, historically, spirituality has rarely been associated positively with mental health. Religion was perceived as "the universal obsessional neurosis of humanity" (Freud, 2015).

However, over the past few decades, there has been a keen interest in investigating spirituality among mental healthcare professionals. A systematic review concluded that faith-based CBT may be more effective in treating depression and anxiety than both control conditions and standard CBT (Anderson et al., 2015). Another systematic review conducted in Pakistan found that the incorporation of a religious approach, particularly Islamic principles, in the counseling process has the potential to alleviate the psychological and emotional distress experienced by individuals (Khan & Nadeem, 2021). Similarly, another research concluded that during COVID-19 Muslims of Pakistan were relying on their religious and spiritual faith to cope with health anxiety (Mahmood et al., 2021). Two more studies indicate that during COVID-19, Pakistani students heavily relied on religious and spiritual coping strategies to cope with anxiety (Mahmood et al., 2021; Salman et al., 2022). Despite the literature review indicating a dire need to incorporate spirituality in counseling sessions, religious and spiritual healers remain the most popular source of mental health services due to the lower stigma attached, lower cost, and greater accessibility (Ali & Gul, 2018). Hence, it would not be wrong to assume that spirituality and religiosity are yet

to be incorporated effectively into psychological therapeutic sessions in Pakistan.

The mental health of undergraduate students can impact not just their academic and career achievements but also the progress of society. Undergraduate education is a sensitive period in an individual's life as they go through psychological and psychosocial changes while simultaneously meeting academic and societal demands (Bayram & Bilgel, 2008). Lun et al. (2018) investigated the frequency of depression and anxiety among undergraduate students in Hong Kong and found that over 50% of participants displayed symptoms of depression and anxiety. Additionally, depression and anxiety are some of the most common mental health conditions undergraduate students suffer from (Holland, 2016; Mackenzie et al., 2011). Depression and anxiety appear to be common issues among undergraduates in Pakistani culture too. According to a mixed method study, out of 188 undergraduate medical students, 71% reported experiencing depression, while 72% reported symptoms of anxiety (Azim & Baig, 2019). In another study within the Pakistani context, (Asif et al., 2020) discovered that among a sample of 500 undergraduate students, 75% reported varying levels of depression, ranging from mild to extremely severe, and 88.4% reported similar levels of anxiety. Rehman et al. (2021) also reported that 12.5% of the 813 university students surveyed in Karachi had depression, which was associated with factors such as social isolation, dissatisfaction with life, and insomnia.

Multiple studies have explored the relevance of spirituality in mental health, emphasizing coping strategies rooted in spirituality to manage depression and anxiety. Additionally, a few studies have examined the prevalence of anxiety and depression among Pakistani undergraduate students. However, the direct relationship between spirituality and these mental health conditions within the context of undergraduate education, especially in Pakistan, is still in its developing stages. This significant literature gap calls for a comprehensive investigation into the relationship between spirituality, anxiety, and depression among Pakistani undergraduate students. Therefore, this study assumes a vital role in addressing the existing knowledge gap by conducting a comprehensive examination of the complex relationship between the research variables and exploring potential gender differences within the studied population. Through this research, the aim is not only to uncover the dynamics of this connection but also to offer valuable insights into the potential benefits of integrating spirituality into therapeutic approaches for treating mental illnesses, especially among the Pakistani undergraduate population. The present research was planned to see the

following research questions i.e., how does spirituality impact the anxiety and depression of undergraduate students. Are there any gender differences in levels of spirituality, anxiety, and depression among the undergraduate population? Based on existing literature following hypothesis was formulated to test in the present study among undergraduate students.

Hypothesis

1. Spirituality is negatively correlated with anxiety and depression among undergraduate students.

Method

Research Design and Sample

A quantitative survey design was employed for the current study. Participant selection was carried out using a convenience sampling method, which involved choosing individuals who were easily accessible from universities. The inclusion criteria encompassed undergraduate students aged 18 and above. Conversely, the two exclusion criteria were individuals below the age of 18 and those who declined to take part in the study. Out of 190 participants, 136 (71.6%) were male, while 54 (28.5%) were female, all with an average age of 27.59 years (***SD*** = 8.87).

Instruments

The following instruments were used to assess the study variables.

Demographic Datasheet

The items provided were created to collect data from participants concerning their gender and age. The demographic questions were intentionally kept concise, given the nature of the mental health condition scales being used.

Spirituality Experience Index-Revised

This study utilized the 23-item Spirituality Experience Index-Revised developed by (Genia, 1997). It measures faith and the spiritual journey without promoting any specific religious belief within its questions. It consists of two subscales: spiritual openness and spiritual support. All items are measured on a 6-point Likert scale ranging from ‘1’ (*strongly disagree*) to ‘6’ (*strongly agree*). In the spiritual openness subscale, items 1, 3, 7, and 10 were reverse scored.

Lower scores on the scale indicate a lower level of spirituality. For instance, a sample item is 'I often feel strongly connected to a power greater than myself.' Genia (1997) reported high reliability for the scale (α = .89) as well as for its sub-dimensions i.e., spiritual support (α = .95) and spiritual openness (α = .79).

Beck Anxiety Inventory

This study utilized the 21-item Beck Anxiety Inventory developed by (Beck et al., 1988a). It measures the intensity of an individual's anxiety, with a particular focus on somatic symptoms. All items are measured on a 4-point Likert scale ranging from '0' (*not at all*) to '3' (*severely – it bothered me a lot*). A score below 22 indicates a low level of anxiety, while a score exceeding 35 suggests a high degree of anxiety. For example, one of the somatic symptoms included in the inventory is 'numbness or tingling.' Beck et al. (1988a) reported strong internal consistency (α = .92), indicating that the inventory is highly reliable. Additionally, Beck et al. (1988a) reported that the scale was moderately correlated with the Hamilton Anxiety Rating Scale (r = .51).

Beck Depression Inventory

This study utilized the 21-item Beck Depression Inventory developed by (Beck et al., 1961). It measures the severity of an individual's depressive symptoms, with all items rated on a 4-point Likert scale, ranging from '0' (absence of symptom) to '3' (presence of intense symptom). A score below 11 indicates normal fluctuations in mood, while a score exceeding 40 indicates an extremely high level of depression. For instance, one of the items is 'I do not feel sad.' Beck et al. (1988b) reported strong internal consistency in both psychiatric (α = .86) and non-psychiatric (α = .81) settings, underscoring the high reliability of the inventory.

Procedure

Ethical considerations were carefully addressed through the process of obtaining informed consent. Participants were informed about their voluntary participation in the research, with a guarantee that their data would be used exclusively for research purposes while maintaining their confidentiality. The sample selection was based on individuals who were readily accessible and willing to participate in the study after being debriefed about the research topic at their respective universities. Data collection was conducted through a physical survey questionnaire, which included a consent form, a demographic questionnaire, and self-reported scales. These scales

were used to gauge levels of spirituality, anxiety, and depression, which were the primary areas of interest in this study. A total of two hundred surveys were distributed, resulting in a 95% response rate, with 10 participants opting to withdraw from the research. Each participant spent approximately 10 minutes completing the two scales. To counterbalance any potential order effects caused by the sequence in which the scales were presented, a different order was employed, with a 50-survey form interval. The gathered data were analyzed statistically through SPSS version 25.

Results

Descriptive analysis was employed to determine the frequency, mean, and standard deviation of participants' age and gender. The results are presented in Table 1.

Table 1

Demographic Characteristics of Participants (N = 190)

Variables	*n*	*%*	*M*	*SD*
Age	-	-	27.59	8.87
Gender				
Men	136	71.6	-	-
Women	54	28.4	-	-

Pearson's correlational analysis was applied to examine the hypothesis regarding the relationship between the variables. It posited a significant negative correlation between spirituality and anxiety and depression. However, the results revealed no correlation between spiritual support, spiritual openness, and anxiety ($p > .05$). The outcomes showed no significant relationship between spiritual support and depression ($p > .05$). However, a weak negative correlation between depression and spiritual openness was reported ($r = -.27$, $p < .01$). Furthermore, overall spirituality (combining support and openness) was reported weak yet significantly correlated with depression ($r = .24$, $p < .01$). The results are presented in Table 2.

Table 2

Descriptive and Pearson's Correlation between the Spirituality Subscales and Mental Health Conditions

Variable	*M*	*SD*	1	2	3	4	5
1. Anxiety	21.35	10.25	-				
2. Depression	10.89	10.92	.18*	-			
3. Spiritual Support	59.33	10.41	.04	-.14	-		
4. Spiritual Openness	37.57	5.0	.07	-.27**	.00	-	
5. Overall Spirituality	48.45	5.0	.07	-.24**	.90**	.43**	-

*$p < .05$, **$p < .01$.

To explore the impact of spirituality on the mental health conditions in undergraduate students, multiple linear regression analysis was utilized. The first analysis examined the impact of spirituality subscales on anxiety as the dependent variable, while the second analysis used the same predictors but with depression as the dependent variable. The results are presented in Tables 3 and 4.

Table 3

Regression Coefficients of Spirituality Subscales and Anxiety (N = 190)

Variable	*B*	*SE*	*t(188)*	*p*	95% *CI*	
					LL	UL
Constant	13.25	7.05	1.87	.06	-.66	27.16
Spiritual Support	.04	.07	.62	.53	-.09	.186
Spiritual Openness	.14	.14	.97	.33	-.14	.43

Note. CI = Confidence Interval, LL = Lower Limit, UP = Upper Limit.

Table 3 demonstrates the impact of spiritual support and spiritual openness on anxiety. The R^2 value of .007 indicates that spirituality accounted for only .7% of the variance in anxiety levels, yet this relationship was statistically insignificant ($F = .67$, $p > .05$). Similarly, both subscales exhibited poor predictive ability for anxiety, as reflected in the insignificant results for spiritual support ($\beta = .046$, $p > .05$) and spiritual openness ($\beta = .07$, $p > .05$).

Table 4

Regression Coefficients of Spirituality Subscales and Depression (N = 190)

Variables	*B*	*SE*	*t*(188)	*p*	95% *CI*	
					LL	UL
Constant	41.76	7.18	5.81	.00	27.60	55.92
Spiritual Support	-.14	.07	-1.99	.04	-.28	-.00
Spiritual Openness	-.59	.15	-3.90	.00	-.89	-.29

Note. CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit.

Table 4 demonstrates the impact of spiritual support and spiritual openness on depression. The R^2 value of .093 indicates that spirituality accounted for only 9.3% of the variance in depression levels with statistically significant values of ($F = 9.640$, $p < .001$). Similarly, both subscales exhibited weak yet significant negative predictive ability for depression, as reflected in the significant results for spiritual support ($\beta = -.139$, $p < .05$) and spiritual openness ($\beta = -.272$, $p < .05$).

Table 5

Mean, Standard Deviation, and t-values on Spiritual Support, Spiritual Openness, Anxiety, and Depression across Genders (N = 190)

	Men (n = 136)		Women (n = 54)				95% *CI*		Cohen' s
Variable	*M*	*SD*	*M*	*SD*	*t*(188)	*p*	*LL*	*UL*	*d*
Spiritual Support	58.30	9.08	61.92	12.93	2.18	.03	-6.89	-.35	.32
Spiritual Openness	38.44	4.43	35.37	5.70	3.96	.000	1.54	4.60	.60
Anxiety	20.71	8.61	22.96	13.50	1.36	.17	-5.49	.99	-
Depression	8.28	9.07	17.46	12.42	5.63	.000	-12.38	-5.47	.84

Note. CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit.

An independent *t*-test was utilized to answer the research question regarding the possibility of gender differences in levels of spirituality and mental health conditions among the undergraduate population of Karachi. Results are presented in Table 5 indicate a significant gender difference in levels of spirituality and depression within the population, while nonsignificant differences were observed on the levels of anxiety.

Discussion

The present research investigated the relationship between spirituality, anxiety, and depression among undergraduate students in Karachi, Pakistan. Additionally, the impact of spirituality on anxiety and depression within this population was also investigated.

In the study, it was postulated that spirituality is negatively correlated with anxiety and depression within the undergraduate student population. However, the results revealed a statistically nonsignificant relationship between these two variables (Table 2). A similar outcome was observed in another study, which explored various coping strategies in relation to respondents' anxiety levels, revealing that religious coping was among those strategies that were not statistically associated with anxiety scores (Melaku et al., 2021). The absence of a significant association between spirituality and anxiety may be attributed to the construct of social desirability bias. A review of relevant literature addressing response bias in research on religion, spirituality, and mental health has suggested that individuals who identify as religious and spiritual may tend to underreport symptoms of psychopathology to project a favorable image of themselves as healthy and desirable members of society (De Oliveira

Maraldi, 2020). Furthermore, this literature review noted that contextual effects are often more apparent when multiple measures are employed within the same assessment setting.

The findings indicate the absence of a significant relationship between spiritual support and depression; however, a mild negative correlation between depression and spiritual openness is evident (Table 2). This suggests that different aspects of spirituality may have varying impacts on depression, aligning with Cornah's (2006) perspective that depression is inversely related to spirituality and diverse facets and expressions of spirituality can potentially alleviate depressive symptoms and foster overall well-being. This viewpoint finds support in another study, which similarly concludes that higher levels of spiritual well-being may reduce mental illnesses, including depression while enhancing overall well-being (Brown et al., 2013).

Further statistical analyses were conducted to address the research questions regarding the impact of spirituality on mental health conditions and potential gender differences within the research variables. The results from the regression analysis indicate that among the population, only spiritual openness emerges as a significant negative predictor of depression (Table 4). Additionally, the outcomes of the independent t-test demonstrate significant gender differences in levels of spirituality and depression (Table 5). The gender-related findings align with existing literature. Rehman et al. (2021) observed that in a sample of university students in Karachi, females exhibited a 70% higher prevalence of depression compared to males. Similarly, another study examining stress and depression rates among university students in Karachi, found significant gender differences, with female students displaying higher levels of depression than their male counterparts (Naseem et al., 2019).

Implications

The findings of this study carry significant implications for the integration of spirituality in counseling sessions for undergraduate students in Karachi, Pakistan. They underscore the inclination of undergraduate students to employ spiritual strategies in addressing their anxiety and depression. The study enhances understanding of the influence of spirituality on anxiety and depression by employing statistical analysis of participant data. Furthermore, it offers valuable insights for mental healthcare practitioners to integrate spirituality into counseling sessions tailored to the unique experiences of their clients, particularly among the youth. Additionally, this research contributes to the existing literature, effectively addressing the knowledge gap

regarding the impact of spirituality on anxiety and depression within the Pakistani context.

Limitations and Suggestions

The current study primarily centered on the spirituality of undergraduate students, thus necessitating caution when generalizing the results. The use of self-reported measures may have limited the accuracy of the responses as there may have been a bias toward providing common answers due to social desirability. To overcome these limitations, it's recommended to gather a larger and more diverse sample from different parts of Pakistan. It's also important to explore other factors that may contribute to mental health risks, such as socio-demographic variables, and to understand how spirituality influences them. Additionally, it's recommended to investigate the mediating and moderating factors related to spiritual practices, such as prayer, coping methods, and meditation, to gain a more comprehensive understanding of how spirituality impacts mental health.

Conclusions

The primary objective of this study was to investigate the influence of spirituality on the mental health conditions (i.e., anxiety and depression) among undergraduate students. Gender differences within the student population were also investigated. The results effectively confirmed one of the proposed hypotheses, revealing a negative correlation between spirituality and depression. Furthermore, the study identified significant gender disparities in both spirituality levels and levels of depression among the participants.

To assess the impact of spirituality on the mental health of undergraduate students, standardized questionnaires were administered, and the results indicated that spirituality has the potential to alleviate depressive symptoms within this population. Additionally, the study found that spirituality serves as a significant negative predictor of depression, reinforcing its significance in mental well-being. These findings were discussed considering existing literature, emphasizing the spiritual experiences of undergraduate students, and suggesting the potential integration of spirituality into counseling sessions for this population.

References

Ali, T. M., & Gul, S. (2018). Community mental health services in Pakistan: Review study from Muslim world 2000-2015. *Psychology, Community and Health*, *7*(1), 57-71. doi.org/10.5964/pch.v7i1.224

Anderson, N., Heywood-Everett, S., Siddiqi, N., Wright, J., Meredith, J., & McMillan, D. (2015). Faith-adapted psychological therapies for depression and anxiety: Systematic review and meta-analysis. *Journal of Affective Disorders*, *176*, 183-196. doi.org/10.1016/j.jad.2015.01.019

Asif, S., Mudassar, A., Shahzad, T. Z., Raouf, M., & Pervaiz, T. (2020). Frequency of depression, anxiety and stress among university students. *Pakistan Journal of Medical Sciences*, *36*(5), 971-976. doi.org/10.12669/pjms.36.5.1873

Azim, S. R., & Baig, M. (2019). Frequency and perceived causes of depression, anxiety and stress among medical students of a private medical institute in Karachi: A mixed method study. *The Journal of the Pakistan Medical Association*, *69*(6), 840-845.

Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, *43*(8), 667-672. doi.org/10.1007/s00127-008-0345-x

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archieves of General Psychiatry, 4, 561-571. *Job control and worker health*, 55-74. doi.org/10.1001/archpsyc.1961.01710120031004

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988a). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893-897. doi.org/10.1037/0022-006X.56.6.893

Beck, A. T., Steer, R. A., & Carbin, M. G. (1988b). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, *8*(1), 77-100. doi.org/10.1016/0272-7358(88)90050-5

Brown, D. R., Carney, J. S., Parrish, M. S., & Klem, J. L. (2013). Assessing spirituality: The relationship between spirituality and mental health. *Journal of Spirituality in Mental Health*, *15*(2), 107-122. doi.org/10.1080/19349637.2013.776442

Burke, M. T., Hackney, H., Hudson, P., Miranti, J., Watts, G. A., & Epp, L. (1999). Spirituality, religion, and CACREP curriculum standards. *Journal of Counseling and Development*, *77*(3), 251-257. doi.org/10.1002/j .1556-6676.1999.tb02448.x

Captari, L. E., Hook, J. N., Hoyt, W., Davis, D. E., McElroy-Heltzel, S. E., & Worthington, E. L. (2018). Integrating clients' religion and spirituality within psychotherapy: A comprehensive meta-analysis. *Journal of Clinical Psychology*, *74*(11), 1938-1951. doi.org/10.1002/jclp .22681

Cook, C. C., & White, N. H. (2018). Resilience and the role of spirituality. Oxford University Press.

Cornah, D. (2006). *The impact of spirituality on mental health: A review of the literature.* Mental Health Foundation. https://www.elament.org.

uk/self-help-resources/the-mental-health-foundation-the-impact-of-spirituality-a-literature-review/

De Oliveira Maraldi, E. (2020). Response bias in research on Religion, Spirituality and Mental Health: A Critical Review of the Literature and Methodological Recommendations. *Journal of Religion and Health*, *59*(2), 772-783. doi.org/10.1007/s10943-018-0639-6

Foskett, J., Marriott, J., & Wilson-Rudd, F. (2004). Mental health, religion and spirituality: Attitudes, experience and expertise among mental health professionals and religious leaders in Somerset. *Mental Health, Religion and Culture*, *7*(1), 5-22. doi.org/10.1080/13674670310001602490

Freud, S. (2015). *Civilization and its discontents*. Broadview Press.

Genia, V. (1997). The spiritual experience index: Revision and reformulation. *Review of Religious Research*, *38*(4), 344-361. doi.org/10.2307/3512195

Holland, D. (2016). College Student Stress and Mental Health: Examination of Stigmatic Views on Mental Health Counseling. *Michigan Sociological Review*, *30*, 16-43. https://www.jstor.org/stable/43940346

Khan, A. A., & Nadeem, M. (2021). Development of Islamic Counseling Protocol for Pakistani Muslim Adults to Manage their Mental Health Problems. *Al-Aijaz Research Journal of Islamic Studies and Humanities*, *5*(1), 13-21. doi.org/10.53575/E2.v5.01(21).13-21

Lun, K. W., Chan, C. K., Ip, P. K., Ma, S. Y., Tsai, W. W., Wong, C. S., ... & Yan, D. (2018). Depression and anxiety among university students in Hong Kong. *Hong Kong Medical Journal*, *24*(5), 466-472.

Mackenzie, S., Wiegel, J. R., Mundt, M., Brown, D., Saewyc, E., Heiligenstein, E., Harahan, B., & Fleming, M. (2011). Depression and suicide ideation among students accessing campus health care. *American Journal of Orthopsychiatry*, *81*(1), 101-107. doi.org/10.1111/j.1939-0025.2010.01077.x

Mahmood, Q. K., Jafree, S. R., Sohail, M. M., & Akram, M. B. (2021). A cross-sectional survey of Pakistani Muslims coping with health anxiety through religiosity during the COVID-19 pandemic. *Journal of Religion and Health*, *60*(3), 1462-1474. doi.org/10.1007/s10943-021-012 18-5

Melaku, L., Bulcha, G., & Worku, D. (2021). Stress, anxiety, and depression among medical undergraduate students and their coping strategies. *Education Research International*, *2021*, e9880309. doi.org/10.1155/2021/9880309

Naseem, N., Naz, L., & Zehra, N. (2019). Prevalence of stress and depression among university students of Karachi. *Pakistan Journal of Neurological Sciences (PJNS)*, *14*(1), 4-9https://ecommons.aku.edu/pjns/vol14/iss1/10

Rehman, R., Fatima, K., Hussain, M., Sarim, M., Gazzaz, Z. J., & Baig, M. (2021). Association between depression and health risk behaviors among university students, Karachi, Pakistan. *Cogent Psychology*, *8*(1), 1886626. doi.org/10.1080/23311908.2021.1886626

Salman, M., Asif, N., Mustafa, Z. U., Khan, T. M., Shehzadi, N., Tahir, H., Raza, M. H., Khan, M. T., Hussain, K., Khan, Y. H., Butt, M. H., & Mallhi, T. H. (2022). Psychological impairment and coping strategies during the COVID-19 pandemic among students in Pakistan: A cross-sectional analysis. *Disaster Medicine and Public Health Preparedness*, *16*(3), 920-926. doi.org/10.1017/dmp.2020.397

Vieten, C., Scammell, S., Pilato, R., Ammondson, I., Pargament, K. I., & Lukoff, D. (2013). Spiritual and religious competencies for psychologists. *Psychology of Religion and Spirituality*, *5*(3), 129-144. doi.org/10.1037/a0032699

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