

ORIGINAL ARTICLE

Resilience through Faith: Exploring the Interplay of Religiosity and Stress Levels among Muslim Undergraduate Students amidst the COVID-19 Pandemic.

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Abstract

The COVID-19 pandemic has had a profound effect on societies, individuals, families, and communities around the world. Many individuals struggled to manage their stress due to the panic caused by this outbreak, leading to an absence of tranquillity in their daily lives. Engaging in worship and prayer as coping mechanisms for stress offers advantages for individuals of all backgrounds, including those enrolled in universities. The study aims to determine the level of religiosity and stress among Muslim undergraduate students at the Kuantan campus of the International Islamic University Malaysia (IIUM) and explore the association between these two variables. A quantitative cross-sectional study was conducted from May to June 2022 on 249 Muslim undergraduates at IIUM Kuantan Campus. Participants were selected using convenience sampling. All Muslim undergraduate students received an English-language Google Forms questionnaire, which included the Duke University Religion Index (DUREL) and Perceived Stress Scale (PSS-10). Data were analysed using SPSS 27.0. At IIUM Kuantan, Muslim undergraduate students exhibited high levels of religiosity (mean=15.73, SD=3.358) but moderate stress levels (mean=20.71, SD=5.590). Weak and inverse linear correlations were found between stress and Organized Religious Activity (ORA)/ Intrinsic Religiosity (IR) items ($r=-0.124$ and -0.057) respectively, while a weak, direct linear correlation was found between stress and Non-Organized Religious Activity (NORA) item ($r=0.087$). However, all three items have insignificant p -values (ORA: $p=0.051$, NORA: $p=0.173$, IR: $p=0.370$); thus, the null hypothesis (H_0) cannot be rejected. Most IIUM Kuantan Muslim undergraduates were religious but experienced moderate stress during the COVID-19 pandemic. Despite this, religiosity did not significantly correlate with stress level.

Keywords: *Coping strategies; COVID-19 pandemic; Muslim Undergraduate Students; Religiosity, Stress levels.*

Introduction

The COVID-19 pandemic is significantly impacting on people, families, communities, and societies around the world. The outbreak began in Wuhan, China, in December 2019 and rapidly spread to other countries. On March 12th, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. The WHO Strategic Preparedness and Response Plan for COVID-19 aims to control the pandemic by reducing transmission and mortality rates in all countries. In March 2020, the Malaysia Prime Minister's office announced the Movement Control Order (MCO) which prohibited many activities. Business premises, public and private schools, universities, places of worship, and all non-essential activities were ordered to halt. This included the suspension of the Muslim Friday prayers [1]. The situation was promptly resolved by isolating patients and providing them with treatment. Physical distancing and movement restrictions, known as "shutdowns" and "lockdowns," can slow COVID-19 transmission by reducing contact between individuals [2]. Various age groups and different lifestyles in the community are affected by depression; however, these conditions are caused by economic, social and cultural factors. It has been revealed that stress is the primary factor affecting mental health [3]. Stress, the body's reaction to demand, change, or threat, does not inherently possess a positive or negative quality, but it can have either beneficial or harmful consequences [4]. Cultural, religious, social, and experiential factors all play a role in how individuals respond to stressful situations [5–8].

During the COVID-19 pandemic and Movement Control Order (MCO) in Malaysia, religion played a significant role in helping individuals cope with stress and uncertainty about the future. Students have been identified as a group significantly impacted by stress during the COVID-19 pandemic, underlining the relevance and urgency of studies focused on this demographic. In a recent study, more than half of the participants expressed that religion aided in

dealing with the challenges brought about by the pandemic. However, there is a gap in research regarding the specific relationship between religiosity levels and stress among students in this context [9]. In response to the observed gap in research regarding faith-religious coping strategies and their relation to stress and anxiety, particularly in a Muslim context, this study aims to investigate the influence of religiosity on stress levels among Muslim undergraduates at the IIUM Kuantan campus during the COVID-19 pandemic. By doing so, it seeks to address whether religious practices serve as effective coping mechanisms in managing stress.

Materials and Methods

A quantitative cross-sectional study was conducted from May to June 2022, involving 249 Muslim undergraduate students from the IIUM Kuantan campus in Pahang. The study used convenience sampling, a non-probability sampling technique that selected respondents who were conveniently available to participate in the survey. Muslim undergraduate students at IIUM Kuantan in 2021/2022 were the focus of the study. Participants were required to have a mobile phone or device to complete online questionnaires and to have experienced the COVID-19 pandemic in Malaysia, especially during MCO. The study excluded students who took leave in 2021/2022 and those with pre-existing medical conditions or depressive and anxiety disorders.

A three-part online self-administered questionnaire was used in the study. Part A collected sociodemographic data such as gender, age, year of study, Kulliyah (faculty), living arrangement during the MCO (alone/friends/family), pre-existing mental illness, Covid-19 infection, and quarantine due to Covid-19 exposure. Part B utilized the Duke University Religion Index (DUREL) Questionnaire to measure Organizational Religious Activity (ORA), one question for Non-Organizational Religious Activity (NORA), and three questions

for intrinsic religiosity (IR) [10]. Meanwhile, Part C used the Perceived Stress Scale (PSS) Questionnaire [21] which consisted of a ten-item self-report instrument. Respondents were required to rate how often they felt a certain way during the pandemic COVID-19, especially during the MCO period, on a five-point Likert scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always).

Approval for this study has been obtained from the Kulliyah of Nursing Postgraduate Research Committee (KNPGRC) and the International Islamic University Malaysia Research Committee (IREC) (IREC 2022-KON/19). Each participant received an information sheet explaining the study's goals and confidentiality measures before providing consent. All participants were assured that their information would be kept confidential and used solely for academic purposes. Data confidentiality was maintained by anonymizing participant identifiers, securely storing all digital records in encrypted formats, and limiting access to the data to authorized research personnel only. Participants were informed that they could refuse participation or withdraw consent at any time.

Statistics

Data analysis was done using SPSS 27.0. A *p*-value below 0.05 was considered significant. Descriptive statistics in percentage and frequency were used to present participant socio-demographic information. The mean and standard deviation (SD) of religiosity and stress levels were shown. Pearson correlation was used to analyse the association between religiosity and stress.

Results

A total of 165 patients enrolled in the Quit In this study, a cohort of 249 Muslim undergraduate students at IIUM Kuantan, Pahang, Malaysia was examined. The majority were female (78.3%), aged between 22-25 years (68.7%), primarily in their fourth year of study (43.8%), distributed across various Kulliyah, with Nursing being the

most prominent (33.7%). During the MCO, most students resided with their families (80.7%), and all of them reported no history of pre-existing mental illness. However, a significant number had been infected with COVID-19 (43.0%), and a majority had experienced quarantine due to close contact with COVID-19 patients (75.9%). These socio-demographic and medical history insights lay the foundation for the subsequent analysis of religiosity and stress levels among this cohort. The results of the study are summarized in Table 1.

Religiosity levels

Table 2 displays the religiosity of 249 Muslim undergraduates at IIUM Kuantan'. In Category 1, which assesses Organized Religious Activity (ORA), 48.6% of students attended religious meetings a few times a year, with some attending more often. In Category 2, Non-Organized Religious Activity (NORA), 47.8% attended private religious activities daily, while others did so multiple times (32.5 %). In Category 3, Intrinsic Religiosity (IR), 76.3% strongly believed that their religious beliefs were an integral part of their lives and shaped their lifestyle (62.2 %). These findings shed light on Muslim undergraduate students' religiosity, aiding in understanding their coping strategies and stress levels during the COVID-19 pandemic.

According to the DUREL questionnaire, IIUM Kuantan Muslim undergraduates are very religious. The total score, with a mean (SD) of 15.73 (3.358) and ranging from 6 to 22, aggregates the individual scores across three categories: Organized Religious Activity (ORA), Non-Organized Religious Activity (NORA), and Intrinsic Religiosity (IR). This consolidated score provides an overall measure of religiosity among the participants. Each category can also be analyzed individually to understand specific aspects of religiosity, but the total score offers a comprehensive view reflecting the general level of religious engagement.

Stress levels

Table 4 presents the frequency distribution of stress levels among 249 Muslim undergraduate students at IIUM Kuantan during the COVID-19 outbreak. The data illustrates the prevalence of various stress levels across a range of emotional and psychological experiences, with "Sometimes" being the most common response category for most stress-related statements.

In Table 5, stress levels among Muslim undergraduate students at IIUM Kuantan indicate that the majority experienced moderate stress levels (73.5%), while 11.2% reported low stress levels and 15.3% reported high stress levels, with corresponding means and standard deviations provided.

Association between religiosity and stress levels

The analysis in Table 6, involving 249 participants, indicated no statistically significant correlations between religiosity and stress levels. Specifically, Organized Religious Activity (ORA), Intrinsic Religiosity (IR), and Non-Organized Religious Activity (NORA) all showed correlations with stress levels, but none reached statistical significance ($p > 0.05$). Consequently, it can be concluded that there is no significant association between religiosity and stress levels among the participants.

Discussion

Established in 1983, the International Islamic University Malaysia (IIUM) aimed to incorporate Islamic knowledge and values into every academic field. At IIUM Kuantan, 78.3% of participants were female and between the ages of 22 and 25 (68.7 percent). Participants comprised 43.8% fourth-year students, with the Kulliyyah of Nursing accounting for the largest proportion at 33.7 percent. A significant proportion of the participants resided with their families throughout the duration of the COVID-19 MCO. Furthermore, 75.9% of the participants reported having been placed in quarantine as a result of

close contact with COVID-19 patients. The research seeks to understand the religious beliefs and practises of the younger generation during these difficult times, in line with a Polish study on a growing faith crisis in this age group [11].

Religiosity Levels

This IIUM Kuantan study found that most Muslim undergraduates were religious, with a large percentage saying their beliefs shaped their lives. Many students practised religion at home during the COVID-19 pandemic, showing that religion can adapt to difficult times. A significant number believed they could experience God in their lives but did not strongly emphasise integrating Islam into all aspects of life, despite the belief that Islam offers a way out of difficult situations [12]. Researchers found that positive religious coping reduces anxiety and depression, as seen in Malaysia's pandemic healthcare workers [13]. Religion's potential to contribute to well-being and mental health during collective crises was emphasized [14].

Stress Levels

The prevention measures related to COVID-19, such as lockdowns and quarantines, have been associated with increased stress, anxiety, and depression in society. The majority of Muslim undergraduate students at IIUM Kuantan experienced moderate stress during the pandemic, possibly due to home living arrangements. The pandemic, combined with fake news and conspiracy theories, has caused uncertainty, fear, and stress, especially for students worried about their future and clinical training. COVID-19 fear has been linked to psychological issues and weakened immune systems, emphasising the need for collective stress management [15]. Similar findings from a study in Turkey suggest that students' stress levels were affected by their knowledge of people testing positive for COVID-19 [16]. Counsellors, lecturers, family members, and friends must be involved to raise awareness and provide strategies for coping with unexpected challenges, as many students were upset by

pandemic events. As shown in other studies, the COVID-19 pandemic has caused situational stress, affecting various aspects of life and raising concerns [17,18]. It's important to acknowledge that one year after the onset of the pandemic, depression levels may rise, especially among students and the unemployed, affecting their anxiety levels and overall life satisfaction [18]. Hence, stress management is vital, especially among student populations, during the ongoing COVID-19 pandemic.

Association Between Religiosity and Stress Levels
ORA and IR demonstrated weak inverse correlations with stress levels, while NORA showed a weak direct correlation. However, it is important to note that none of these correlations reached statistical significance, as indicated by p-values greater than 0.05. Therefore, these correlations should not be interpreted as significant relationships between religiosity and stress. This suggests that IIUM Kuantan Muslim undergraduates' stress levels were unrelated to religiosity during the COVID-19 pandemic. Stress during the pandemic may be caused by external factors like daily routine, study, and clinical disruptions. Other regional studies have linked increased religious and spiritual practises to improved mental health, reduced sadness and fear, and increased hope during the pandemic. Positive religious coping reduces psychological issues, especially during difficult times, according to research [19,20].

Conclusion

Most IIUM Kuantan Muslim undergraduates were religious but experienced moderate stress during the COVID-19 pandemic. Despite this, religiosity was not significantly correlated with stress levels, suggesting that it may not have a direct association. This finding highlights the

need for caution in implying causation from correlation alone and suggests that future studies could explore if religiosity serves as a predictor in regression analyses.

Time constraints and data collection confidentiality issues limited this study to 249 participants. To better understand the relationship between religiosity and stress, future studies should include socio-demographic factors. Larger studies across Malaysia's centres and states can provide local insights.

Implication to nursing

The COVID-19 pandemic has underscored the need for crisis preparedness. Nurses and university administrations can collaborate to develop crisis response plans with mental health support for students.

Conflict of interest

The author has no conflict of interest to declare about this study.

Fundings

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Table 1. Socio-demographic background of Muslim undergraduate students in IIUM Kuantan, Pahang, Malaysia (N=249)

Variables		Mean (SD)	Frequency (Percentage)
Gender	Male		54 (21.7)
	Female		195 (78.3)
Age	18-21 years old	0.69 (0.470)	77 (30.9)
	22-25 years old		171 (68.7)
	26-29 years old		1 (0.4)
Year of Study	First		33 (13.3)
	Second		62 (24.9)
	Third		39 (15.7)
	Fourth		109 (43.8)
	Fifth		6 (2.4)
Kulliyyah	Sciences		31 (12.4)
	Medicine		61 (24.5)
	Allied Health Sciences		53 (21.3)
	Dentistry		6 (2.4)
	Nursing		84 (33.7)
	Pharmacy		14 (5.6)
			5 (2.0)
Living arrangement During MCO	Living alone		5 (2.0)
	Living with friends		43 (17.3)
	Living with family		201 (80.7)
Any mental illness before COVID-19	Yes		0
	No		249 (100)
Being infected with Covid-19	Yes		107 (43.0)
	No		142 (57.0)
Quarantine experienced for being close contact with patients with COVID-19	Yes		189 (75.9)
	No		60 (24.1)

Table 2. Measurement of Religiosity

Variable	Frequency (Percentage)	
Category 1: ORA (Organized religious activity)		
Attend mosque or other religious meetings?	Never	2 (0.8)
	Once a year or less	10 (4.0)
	A few times a year	121 (48.6)
	A few times a month	60 (24.1)
	Once a week	30 (12.0)
	More than once/week	26 (10.4)
Category 2: NORA (Non-Organized religious activity)		
Spend time in private religious activities, such as prayer, meditation or Al-Quran study	Rarely or never	6 (2.4)
	A few times a month	0
	Once a week	0
	Two or more times/week	43 (17.3)
	Daily	119 (47.8)
	More than once a day	81 (32.5)
Category 3: IR (Intrinsic religiosity)		
Experience the presence of the Divine (i.e., God) in life	Definitely not true	1 (4)
	Tends not to be true	0
	Unsure	15 (6.0)
	Tends to be true	43 (17.3)
	Definitely true of me	190 (76.3)
Behind my whole approach to life really lie on religious beliefs	Definitely not true	3 (1.2)
	Tends not to be true	78 (31.3)
	Unsure	13 (5.2)
	Tends to be true	0
	Definitely true of me	155 (62.2)
Try hard to carry religion over into all other dealings in life	Definitely not true	4 (1.6)
	Tends not to be true	122 (49.0)
	Unsure	16 (6.4)
	Tends to be true	0
	Definitely true of me	107 (43.0)

Table 3. Religiosity Levels (N=249)

Variable		Mean (SD)	Minimum	Maximum
Religiosity Level	ORA	2.74 (1.093)	6	22
	NORA	4.06 (0.940)		
	IR	8.94 (2.813)		
	Total Score	15.74 (4.846)		

Table 4. The frequency table of stress levels among Muslim undergraduate students in IIUM Kuantan (N=249)

Variables (During the COVID-19 outbreak)	Frequency (Percentage)	
Upset because of something that happened unexpectedly	Never	5 (2.0)
	Almost Never	24 (9.6)
	Sometimes	132 (53.0)
	Fairly Often	64 (25.7)
	Very often	24 (9.6)
Felt that unable to control the important things in life	Never	11 (4.4)
	Almost Never	35 (14.1)
	Sometimes	121 (48.6)
	Fairly Often	54 (21.7)
	Very often	28 (11.2)
Felt nervous and “stressed”	Never	5 (2.0)
	Almost Never	28 (11.2)
	Sometimes	97 (39.0)
	Fairly Often	76 (30.5)
	Very often	43 (17.3)
Felt confident about your ability to handle personal problems	Never	16 (6.4)
	Almost Never	74 (29.7)
	Sometimes	130 (52.2)
	Fairly Often	27 (10.8)
	Very often	2 (0.8)
Felt that things were going your way	Never	6 (2.4)
	Almost Never	52 (20.9)
	Sometimes	156 (62.7)
	Fairly Often	31 (12.4)
	Very often	1 (0.4)
	Never	6 (2.4)

Could not cope with all the things that had to do	Almost Never	46 (18.5)
	Sometimes	127 (51.0)
	Fairly Often	54 (21.7)
	Very often	16 (6.4)
Able to control irritations in your life	Never	12 (4.8)
	Almost Never	90 (36.1)
	Sometimes	127 (51.0)
	Fairly Often	17 (6.8)
	Very often	3 (1.2)
Felt that you were on top of things	Never	6 (2.4)
	Almost Never	30 (12.0)
	Sometimes	144 (57.8)
	Fairly Often	59 (23.7)
	Very often	10 (4.0)
Angered because of things that were outside of your control	Never	7 (2.8)
	Almost Never	51 (20.5)
	Sometimes	113 (45.4)
	Fairly Often	59 (23.7)
	Very often	19 (7.6)
Felt difficulties were piling up so high and could not overcome them	Never	8 (3.2)
	Almost Never	55 (22.1)
	Sometimes	113 (45.4)
	Fairly Often	46 (18.5)
	Very often	27 (10.8)

Table 5. Stress Levels Category among Muslim undergraduate Students in IIUM Kuantan, Pahang (N=249)

Category	Frequency (n)	Mean (SD)
Low Stress Levels	28 (11.2)	20.71 (5.59)
Moderate Stress Levels	183 (73.5)	
High Stress Levels	38 (15.3)	

Table 6. Association between religiosity and stress level (N=249)

Variables	Pearson Correlation	
	Stress Levels	
Religiosity Levels	Pearson Correlation (r)	Sig. 2-tailed (p)
ORA	-0.124	0.051
NORA	0.087	0.173
IR	-0.057	0.370

Note : Statistical test (Pearson Correlation)

*Pearson Correlation set, $p=0.05$ with 95% CI

Pearson Correlation, $p<0.05$ as significant 95% CI.

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