Journal of Religion and Health (2021) 60:4579–4599
https://doi.org/10.1007/s10943-021-01422-3

ORIGINAL PAPER

Coping with Anxiety During the COVID-19 Pandemic: A Case Study of Academics in the Muslim World

Meguellati Achour[1] · Dahmane Souici[2] · Benaouda Bensaid[3] · Nurulhuda Binti Ahmad Zaki[4] · Ameen Ahmed Abdullah Alnahari[4]

Accepted: 31 August 2021 / Published online: 12 September 2021

Abstract

The COVID-19 pandemic has been a global phenomenon defined by uncertainty, fear and grief which has resulted in record high levels of stress and anxiety in the first half of 2020. It also led to an increased interest in the study of the role of belief, religion, and spirituality as responses to coping with and responding to the pandemic throughout different societal domains. This study explores the impact of anxiety and stress caused by the pandemic on Muslim academics' subjective well-being. It also explores correlations between coping and spirituality by assessing Muslim academics' coping strategies in overcoming stress and anxiety. To this end, this study sampled 480 Muslim academics ages 25–60 years residing in Muslim countries. The findings show a negative yet significant correlation between anxiety and well-being while also showing a positive and significant correlation between coping strategies and subjective well-being. The research also points to the role of coping strategies in reducing anxiety and stress, the resulting improvements in well-being for Muslim academics, and the mediating effect of coping strategies between anxiety, stress, and well-being for Muslim academics.

Keywords COVID-19 · Muslim academics · Coping strategies · Subjective well-being · Anxiety · Religiosity

Introduction

On March 12, 2020, the World Health Organisation declared COVID-19 as a pandemic (World Health Organisation, 2020). The affirmation of a looming public health emergency brought about international concern, as well as strong measures to detect the disease, isolate cases, promote social distancing, create networks of

✉ Meguellati Achour
achour.meguellati@univ-bba.dz

Extended author information available on the last page of the article

experts and scientific research to contain the pandemic globally, and implement a robust risk management plan concerning coronavirus (Dana Spinant, 2020). Governments in OIC countries also undertook strict measures to contain the virus, including banning public religious gatherings and the prohibiting of congregational prayers in mosques. The Saudi Government, for instance, took unprecedented radical measures and halted the monumental and highly anticipated Hajj pilgrimage.

The outbreak of COVID-19 caused global interruptions and suspensions across vital industries such as trade, transportation, education, travel, and tourism, among others. The pandemic's scale and unpredictability fostered an air of uncertainty and danger, which evoked feelings of shock, confusion, frustration, and worry (Columbia University Resources, 2020). As a response, governments allocated financial and human resources to cope with and contain the spread of this pandemic. Alongside those containment measures, communities also sought to initiate health awareness campaigns, provide financial and social support, as well as the encouragement of grassroots measures to encounter the pandemic. Governments also imposed protective measures, most notably, strict lockdowns, the lack of mobility, and containment at home caused widespread distress and anxiety.

Since January 20, 2020, and following China's confirmation of the COVID-19 transfer among humans (Zhu et al., 2019), conditions of social distancing, social isolation, and lockdowns were ascribed as reasons for anxiety and depression. According to one study, individuals showcased varying degrees of stress and anxiety, especially those in lockdown areas that oftentimes may even experience boredom, anger, and loneliness (Hassannia, 2020). Due to extended lockdowns, individuals also experienced stress, anxiety, and a range of other mental health problems. Environmental stressors aside, symptoms of viral infections, such as coughs and fever, may also be the cause of cognitive distress and anxiety (Chen et al., 2020; Xiang et al., 2020). Due to the increased virus-related mortalities, health personnel and the public experienced psychological challenges such as anxiety and depression (Kang et al., 2020).

For many, the COVID-19 pandemic brought about not only a fear of the viral infection, but also of the sudden change in patterns of life and the way in which members of society cooperate and cope. One emerging concern at the onset of the crisis was the need for consensus and uniform behavior in order to better control the spread of the virus. Some groups and individual's refusal to adopt preventive and protective measures caused the virus to further spread (Jakovljevic et al., 2020) and consequently increased levels of anxiety, depression, and overall deterioration of mental health.

Literature Review

Since the World Health Organisation declared COVID-19 as a pandemic, many studies have been conducted on its psychological outcomes such as anxiety and coping strategies. The study of coping strategies and additions to this body of knowledge seeks to provide a better understanding in the way of reducing levels of stress and anxiety throughout global health crises. Although researchers

identified numerous approaches, strategies, and techniques for effective coping with life stressors (Achour et al., 2016a), few have focused on the context, nature, and character of Muslim faith and practice.

Rawat and Choudhary (2020) sought to explore the different psychological and social strategies used to cope with stress and anxiety of the tri-pillar education system to optimize well-being during the pandemic. Their findings enumerated several mechanisms for teachers to effectively cope with stress and anxiety. Those include the need to take proactive approaches, stay connected with the universe, reflect, connect with their selves, focus on their health, and manage their media time. Chirombe et al. (2020) concluded that people utilized different social, psychological, religious, and physical coping strategies during the lockdown to reduce stressors and anxiety and enjoy a life like their normal daily routines without physical contact with the outside world. In their study on the people of Kashmir, Bhat et al. (2020) surveyed the psychological impact, anxiety, depression, and stress, and the economic downfall disturbing people's social lives during the initial stage of the outbreak. The results revealed that 76.5% of respondents believed that the lockdown was temporary to prevent the spread of COVID-19. However, the respondents held that many new psychological, social, economic, and academic problems would arise in the event of a continued lockdown. For them, coping with the stress of the lockdown required physical activities, religious activities, and social work.

The physical symptoms of COVID-19 that include fever, hypoxia, and cough and other adverse effects of prescribed medications (corticosteroids) may cause anxiety and mental distress (Wang et al., 2020). A recent study of 1210 participants across 194 cities in China reported that 53.8% had moderate or severe psychological impact; 31.3% with depression, 36.4% with anxiety, and 32.4% suffered from stress (Liu et al., 2020). Furthermore, poor or very poor self-rated health was significantly associated with an increased psychological effect of COVID-19 (Liu et al., 2020). This impacts individuals' feelings and emotions directly, thus requiring coping strategies to mitigate both the extent and symptoms of anxiety and stress. The COVID-19 pandemic has also affected educational institutions significantly. Sahu, (2020) noted a strong possibility of deteriorating mental health associated with uncertainty and anxiety among students and faculty members. Given the fresh history of the phenomenon and limited empirical studies on the impact of anxiety and stress resulting from COVID-19 on the well-being of academics, the current study explores the effects of anxiety and stress of COVID-19 on the well-being of Muslim academics. It also investigates Muslim academics' coping strategies to manage stress and anxiety and improve their well-being.

Coping with Stress and Anxiety During COVID-19

While stress and anxiety are unavoidable human experiences, their levels of severity can impact people's quality of life detrimentally. Although stress and anxiety share several common emotional and physical symptoms such as uneasiness, tension, headaches, high blood pressure, and loss of sleep, they are brought about by

different triggers. Determining which of those a person is experiencing is critical to an effective treatment plan and relief (Franzi Ross, 2018). Anxiety for example is the feeling of being nervous or worried, often because of fear of a possible future event (McKean, 2005).

Anxiety and stress are studies across disciplines such as psychology, sociology, and medicine. Selye, (1976) defined it as "the nonspecific response of the body to any demand placed upon it to adapt, whether that demand produces pleasure or pain." Definitions of anxiety or stress include the loss of emotional control, wear and tear on the body, inability to cope, or absence of inner peace (Günbay, 2014). Socially isolated people often experience anxiety, depression and loneliness, and negative emotions. Zimbardo et al., (2003) and Krantz et al., (1985) defined stress as a change in the individual's mental or physical condition in response to threats or challenges. Stress is described as the experience of negative emotional states such as frustration, worry, anxiety, and depression attributed to work-related factors (Kyriacou, 2001).

However, stress, depression, and anxiety are more prevalent in public service industries such as education, health and social care, public administration, and defense. Public service professionals will often experience higher levels of pressure in comparison with other jobs (Health and Safety Executive, 2020). Given the above, COVID-19-related stress and anxiety appear to have a serious and direct impact on societal well-being. The COVID-19 pandemic has caused fear, anxiety, panic, anger, uncertainty, depression, and a loss of confidence in national leadership (Jakovljevic et al., 2020).

Coping Strategies

Coping is described as the ability to deal effectively with something difficult. Coping strategies are also defined as how a person reacts or responds toward a stressor (Myers, 2005). Coping strategies represent the ways an individual, group, or organization use to minimize the effects of stress (Barhem et al., 2009). Coping strategies are problem-focused and emotion-focused. Problem-focused coping targets problem-solving, or in other words, acting to alter the source of stress. Emotion-focused coping seeks to reduce or manage the emotional distress often associated with the situation (Folkman & Lazarus, 1984).

Relaxation, meditation, imagination, and yoga are some coping mechanisms used to help individuals reduce their levels of anxiety (Achour et al., 2016a). Social support, transitioning from subject, self-control, and problem-solving plans also represent coping strategies for pressing conditions (Lazarus & Folkman, 1988). Religiosity and self-efficacy also have essential roles in predicting work and life satisfaction (Mirsaleh et al., 2010). Effective coping strategies may minimize the impact of stressful situations on one's well-being (Park & Adler, 2003). Coping can affect the psychological morale such, especially in the way one feels about himself and life, as well as the emotional reaction which include for example the levels of depression, anxiety, or balance held between positive trends and negative feelings, and the incidence of psychiatric disorders or performance (Aqeel & Achour, 2011).

Religion seeks to provide meaning to life, particularly in times of calamity (Ebaugh et al., 1984). This explains why religion exerts significant influence on behaviors, attitudes, and values, individually and communally (Stavrianea & Kamenidou, 2017). Debates on the role of religion in coping are highly prevalent in the literature and have often indicated correlations (Srole & Fischer, 1978). While the world faced disruptions of a phenomenal scale due to the outbreak of COVID-19, religious communities mobilized their efforts to combat the pandemic and its outcomes, proving that religion may significantly influence community perspectives during times of emergency (Ebrahim et al., 2020) as it allows individuals to be present and connect with the other (Salve, 2020). Such behavioral trends can be observed in past Gallup research which indicates that less than 40% of American people affirmed their religious affiliation since the 1960s, with numbers rising to 70% following the events of 9/11 (Vogel, 2020). This coincides with similar observations on calamities resulting in religious and spiritual realizations. Furthermore, global solidarity, responsibility, empathy, and ability to maintain faith are of value in times of stress and anxiety (Salve, 2020).

Like other spiritual and religious communities, Muslims have also displayed significant dynamic responses worth exploration. Some refer to theological reasoning in that a virus may be a punishment or warning from God for people to realize their sins and repent (Zahid, 2020). On another note, Islamic scriptures instruct Muslims to adopt responsible behavior toward others during times of crises. The concept of social responsibility in the Islamic tradition is exhaustive. However, when endangered, Muslims are exhorted to show solidarity toward others to remain safe. There are certain established Islamic rules set to protect human lives and reduce economic losses during an emergency (Fadel, 2020) such as "if you hear the news of an outbreak of an epidemic (plague) in a certain place, do not enter that place: and if the epidemic falls in a place while you are present in it, do not leave that place to escape from the epidemic" (Al-Bukhari, 6973).

Religious Coping Strategies

In the discussion of Muslim thinking, Muslims capitalize on their belief, religiosity, and spirituality to cope with life problems and stressors. Turning to faith, prayer, supplication, Qur'anic recitation, trust in and remembrance of God, forgiveness, patience, beginning the day with positive ideas, thankfulness to God for His blessings; all serve as effective coping strategies for life stressors (Achour et al., 2016a). Prayer, sleep, silence, and temporary isolation away from conflict are also viewed as effective coping strategies (Arshad & Shahed, 2019). Achour et al., (2016a) enumerated trust in God, the performance of prayer, remembrance of God (dhikr), patience, forbearance, and forgiveness, positive thinking, and community support as Islamic coping strategies.

Al-Munajjid (2006) enumerated several basic Muslim-based coping strategies which comprise of comprehending the true reality of this world and a realization of the fleeting and transient nature of this world and its material luxuries. This is complemented by the remembrance of death and acknowledgment of the eventual departure from life into the Hereafter. He argued that over-preoccupation with the material world confuses

people, while belief in the eschatological order clarifies vision, focus, and determination. Prayer (salat) and supplication to God (du ‘a) also effectively help Muslims cope with life problems and stress. Regular prayers and supplications yield beneficial yet influential effects such as people’s protection and resolving of their life problems. He also noted that stress could be contained through the Islamic practice of continuously zikr or remembrance of God, glorification, invocations (*du’a*), and recitation of God’s book the Qur’an.

Assessment of Coping Strategies

Coping strategies were assessed using selected scales from the Cope inventory (Carver et al., 1989). Cope is a multidimensional coping inventory developed to assess the different ways in which people respond to stress (Carver et al., 1989). The coping scale was used to assess the coping styles and strategies and comprises 24 items sub representing the following twelve categories: active coping, planning, use of emotional support, positive reframing, acceptance, religion, venting, denial, behavior disengagement, self-distraction, use of humor, and alcohol. Baloran, (2020) used 13 items to measure coping strategies during the COVID-19 pandemic. Weiner et al., (2020) instead used 11 dimensions to measure stress-related coping strategies during COVID-19. Those include exercises, music, meditation/mindfulness, tobacco, alcohol, research projects, family time, spiritual/religious activities, reading, television, and telecommunication with friends. As shown in Table x (Supplementary Material) of this study, coping strategies consist of five primary dimensions: performing prayer (F1), which contains nine items; religious activities (F2) with seven items, meditation (F3) with five items, spending time (family/friends/academic) (F4) with six items, and adaptation to reality (F5) with three items.

Theoretical Framework

There exists a variety of theories on the study and assessment of stress and coping. Early studies primarily focused on the individual’s physiological response to stress, and this study of stress and coping physiological responses has a distinguished and long history (Cummings & Kouros, 2008).

Lazarus and Folkman’s Theory

Lazarus and Folkman’s theory of stress and coping (1984) provides an interesting framework for organizing the central themes of discussion, including the problems associated with aspects of the model, gaps in the original model, as well as new research directions emerging in the intervening years.

Coping Strategies Theory

Bartholomew and Horowitz, (1991) advanced the theory of coping strategies and further developed by Fox and Warber, (2014). This theory studies the experience of forming relationships and beliefs related to specific events over lengthy periods exceeding two months in which preferred and nonpreferred impressions of one's self and others are formed. This is the case as a result of the pandemic's repercussions and social interaction. Those may affect the individual stressfully, causing one to appear anxious, avoided, uncertain, potentially less confident (McAlonan et al., 2007; Wang et al., 2020), and disinterested in personal relationships (Rubin & Wessely, 2020). There is also disgust toward others in fear of infectious contamination (Patel & Jernigan, 2020). This leads to the pursuit of alternative interaction strategies to compensate psychologically for those lost in the real world in which one may also resort to social media interactions (Wong et al., 2020).

Weisskirch and Delevi, (2012) discussed how individuals rely on social media to follow friendships and strengthen their relationships. This appears to correspond to the repercussions of the COVID-19 pandemic where individuals ventured outside their homes for their families' basic needs while maintaining social separation and avoiding contact with others (Chew et al., 2020; Olivera-La Rosa et al., 2020).

Equilibrium Theory

According to the equilibrium theory of intimacy in face-to-face interactions (Argyle & Dean, 1965), a mutual and appropriate level of psychological comfort, closeness, or involvement exists between individuals. This theory describes the individual's attitudes toward survival and avoidance in their interpersonal encounters. These conflicting trends are reflected through verbal and nonverbal behaviors that emanate from a person in their interactions. Examples of these behaviors include conversation, the degree of physical proximity between them, the extent of smiling, and the level of visual interaction.

The theory suggests that nonverbal behavior and verbal self-disclosure combine to determine the level of expressed intimacy and psychological closeness between interactional individuals (Argyle & Dean, 1965). The theory suggests that shortly after two people interact, a mutual level of comfort in these behaviors is reached—equilibrium or an appropriate balance in how they cooperate. Furthermore, once this equilibrium is disturbed by a substantial change in one of these behaviors, a change in one or more of the behaviors will occur automatically to compensate for and restore equilibrium (Almuaybid, 2016).

Once a level of comfort in the interaction is reached, the change is compensatory, resulting in the disappearance of the effect and discomfort because of the intimacy among the two communicating parties, especially when others are trying to co-exist during the circumstances of the pandemic and to use alternative ways for everyday life allowing them to avoid social contact and proximity (Wong et al., 2020).

Accordingly, considering the repercussions of the pandemic and the fear of infection or direct injury, when a person is positioned close to another, it is viewed as an

intrusion on what is permissible, safe, and healthy personal space (Chen et al., 2020; Lewnard & Lo, 2020). Usually, individuals exhibit physiological expressions of confusion, anxiety, and discomfort (Aiello, 1976).

Styles of Psychosocial Coping Strategies

Bartholomew and Horowitz (1991) noted four significant styles of psychosocial coping strategies as secure, fearful, preoccupied, or dismissive. First, those "secure" exhibit low anxiety and low avoidance. Individuals in this category appear to have high self-esteem, helping them reduce the burden of self-blame resulting from the inability to direct interaction and contact with relatives and friendships. They found an alternative mode of interaction through social media (Fu et al., 2020; Sun et al., 2020) and tend to follow their work and activities from home to avoid infection (Fu et al., 2020).

Second, there are preoccupied individuals (high anxiety, low avoidance) who may feel remorse because of their inability to visit their relatives and may even exaggerate their feelings on phone calls or through social media. They may also exaggerate religiosity and commitment through social media and adhere to a daily response of divine remembrance, Qur'an recitation or reading, as an escape from reality or because of the feeling they may get infected, or due to their anxiety about the future, may fear death within days (Lewnard & Lo, 2020; Rundle et al., 2020).

Third, those dismissive persons (low anxiety, high avoidance) enjoy a positive view of the self and see themselves as resilient and independent of others, however with a negative view of others because of their early unresponsive care. Although they feel uncomfortable with their proximity to others, they generally tend to have a positive view of themselves. This strategy leads to a denial of attachment needs, avoidance of closeness, intimacy, dependence on close relationships, and self-reliance and independence (Kidd et al., 2011). There are also sentiments of loathing interaction with health professionals, including nurses and doctors, with some sensitivity and lack of social confidence out of fear of infection (Olivera-La Rosa et al., 2020; Shalhub et al., 2020). Last, fearful individuals (high anxiety, high avoidance) feel discomfort in their relationships toward others because of their anxiety about being hurt by them or sick and may infect others (Prentice et al., 2020). Despite those individuals' commitment to preventive measures, they are afraid to come into contact with health professionals (Patel & Jernigan, 2020).

Theory of Subjective Well-Being

Many studies indicate that the COVID-19 pandemic caused a significant decrease in well-being in China (Ahmed, 2020) as well as around the world. Such global trends of deteriorating well-being also present themselves in the Muslim world and academic staff. Under the growing pressure of the outbreak, institutions and universities have given more attention to staff's SWB in efforts to upkeep their performance and continued sustainable development (Carnevale & Hatak, 2020). Levels of subjective well-being are influenced by internal factors of personality and outlook and external

factors of society (Diener, 2021). The theory of subjective well-being is avowedly interested in the internal and external factors which influence people's life (Diener, 2009, p. 3). However, the focus of analysis is always the individual and its subjectivity. In Diener's terms, elements such as "health, comfort, virtue, or wealth… are seen as potential influences on SWB, they are not seen as an inherent and necessary part of it" (Diener, 2009, p. 13). According to the original theory, Seligman, (2002) argued that happiness is composed of positive emotions, engagement, and meaning. Seligman, (2011) recently revised his theory and included positive relationships and accomplishment. The SWB theory therefore embraces five well-being indicators, namely positive emotion, engagement, relationships, meaning, and achievement (Coffey et al., 2016). Researchers have also studied the outcomes of subjective well-being and have found that "happy" people are more likely to be healthier, live longer, have better social relations, and be more productive at work (Diener, 2021).

Methods

Participants and Procedures

The research population comprised of Muslim academics in selected Muslim universities. Table 1 shows that the age of most of the respondents ranged between 25 and 40 years (54.8%), 30.8% between 41 and 50 years, and 14.4% were over the age of 50. Participants were assured that their answers would be kept confidential and used solely for the intended research purposes. The researchers conducted this research during increasing COVID-19 pandemic cases globally and in Muslim countries, where most countries were under lockdowns. Those countries include Algeria, Malaysia, Indonesia, Saudi Arabia, Iran, Egypt, Turkey, Qatar, Nigeria, Jordan, Yemen, Morocco, Libya, Mauritania, Palestine, Iraq, Kuwait, Oman, Sudan, Tunisia, Syria, and Bangladesh. Participant selection occurred through snowball sampling for the reason that potential participants were hard to find at the height of the COVID-19 pandemic in April and May of 2020.

A total of 480 questionnaires were collected from Muslim academics in Muslim universities. The majority of respondents were males (71.5%) and 28.5% females. 22.9% of respondents were single, 75.4% married, and 1.7% divorced. The majority of respondents were Arab (69.6%), while 30.4% were non-Arab. Most had less than five years of experience (37.5%), 28.1% between 6 and 10 years of experience, while 34.4% with more than ten years of experience. Most of the respondents had more than two children (42.9%), 15.8% had two, 11.7% had only one, and 29.6% did not have any children.

Measures

Anxiety was measured using ten items developed by Abanoub et al., (2020). Cronbach's alpha was 0.78. (e.g., "Anxiety and worries of others around me can

Table 1 Demographic variables of the sample ($N=480$)

Variables	Category	Frequency	Percent
Gender	Male	343	71.5%
	Female	137	28.5%
Age	25–40 Years	263	54.8%
	41–50 Years	148	30.8%
	More Than 50 Years	69	14.4%
Marital status	Single	110	22.9%
	Married	362	75.4%
	Divorced	8	1.7%
Country	Arab	334	69.6%
	Non-Arab	146	30.4%
Working experience	Less than 5 Years	180	37.5%
	6–10 Years	135	28.1%
	More than 10 Years	165	34.4%
Child number	No Child	142	29.6%
	1 Child	56	11.7%
	2 Children	76	15.8%
	More than 2 Children	206	42.9%

increase my fear of COVID-19 outbreak") (Item-3), "Updates of data on the COVID-19 outbreak increase my anxiety and worries" (Item-9).

Subjective well-being was measured using 15 items. The researchers cited most of the items from Ryff Scales of Psychological Well-Being developed (1989) and modified them according to the current COVID-19 context.

Coping strategies were measured using 30 items developed by Achour et al., (2019). Those were also modified and developed according to the current pandemic. This variable was adopted according to the Islamic perspective to examine its relationship with anxiety and subjective well-being. The sample items include "I perform all my prayers at home COVID-19 pandemic" (Item-15), "During the COVID-19 pandemic, I understood that prayer is the key to solving all sorts of life problems" (item-13), and "I feel free and relaxed whenever I perform prayer" (Item-25). The scale uses 5-point Likert response format, ranging from (1) "Strongly Disagree" to (5) "Strongly Agree."

For clarification: performing prayer (F1), religious activities (F2), mediation (F3), spending time with (family/friends/academic) (F4), adapt to reality (F5).

Table 2 indicates a strong positive and significant correlation, respectively, between coping strategies and subjective well-being ($r=0.421$, $p=0.000<0.01$), well-being and performing prayer ($r=0.399$, $p=0.000<0.01$), well-being and religious activities ($r=0.306$, $p=0.000<0.01$), well-being and mediation ($r=0.218$, $p=0.000<0.01$), well-being and spending time with (family/friends/academic) ($r=0.228$, $p=0.000<0.01$), and well-being and adapting to reality ($r=0.274$, $p=0.000<0.01$). There is also a negative yet significant correlation between anxiety and well-being ($r=-0.248$, $p=0.000<0.01$). We also found a positive and significant relationship between anxiety and coping strategies ($r=0.118$, $p=0.006<0.01$),

Table 2 Correlation between coping strategies, F1, F2, F3, F4, F5, well-being and anxiety

	M	SD	1	2	3	4	5	6	7
1. Coping Strategies	124.74	15.45	1						
2. Factor 1	41.80	4.86	.753**	1					
3. Factor 2	27.49	5.99	.776**	.495**	1				
4. Factor 3	21.73	4.60	.682**	.519**	.376**	1			
5. Factor 4	21.78	4.86	.592**	.185**	.274**	.162**	1		
6. Factor 5	11.94	2.22	.500**	.234**	.234**	.167**	.451**	1	
7. Well-Being	61.20	8.50	.421**	.399**	.306**	.218**	.228**	.274**	1
8. Anxiety	27.73	6.21	.118**	.068	.114*	.085	.081	.012	− .248**

*$p < 0.05$, **$p < 0.01$

as well as anxiety and religious activities ($r = 0.114$, $p = 0.006 < 0.01$). The relationship of anxiety with performing prayer, mediation, spending time with family/friends/academic, and adapt to reality is significantly low and insignificant.

Regression Analysis

In this part of the study, researchers wanted to confirm the effect of coping strategies as a mediating variable or moderating variable on the relationship between anxiety and subjective well-being. For this purpose, the researchers conducted a regression analysis.

Moderating Effects of Coping Strategies

Hierarchical regression analysis was used to test the hypotheses that coping strategies moderate the relationship between anxiety and well-being. According to Rose et al., (2004), all variables were entered into the regression equation. In step one, anxiety was entered, and this model was found to be statistically significant, $F = 31.373$, $p = 0.000 < 0.05$, $R2 = 0.062$. In step two, the interaction of coping strategies with anxiety was entered, showing a resulting model $R2$ significantly greater than zero, $F = 135.452$, $p = 0.000 < 0.05$, $R2 = 0.269$. In step three, the interaction of anxiety, coping strategies, and anxiety* coping strategies was entered, and subjective well-being was entered as a dependent variable, $F = 0.457$, $p = 0.499 > 0.05$, $R2 = 0.270$ (see Table 3). Thus, the findings failed to confirm any significant moderating effects of coping strategies on the relationship between anxiety and subjective well-being.

The Mediating Effects of Coping Strategies

The role of coping strategies as mediator was also examined through hierarchical multiple regression analysis as recommended by Hayes, (2013) and Baron and Kenny, (1986). The results are presented in Table 4.

Table 3 Multiple regression analysis testing moderating effects of coping strategies on the relationship between anxiety and well-being

Variables	B	Beta	R2	R	F	t	P
D.V: Well-Being							
Step 1							
Anxiety	−.410	−.299	.062	.248	31.373	− 7.374	.000
Step 2							
Coping strategies	.247	.453	.269	.519	135.452	11.123	.000
Step 3							
Interaction (Anxiety* Coping Strategies)	−.227	−.028	.270	.519	0.457	−.676	.499

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

Table 4 Multiple regression analysis testing mediating effects of coping strategies via the relationship of anxiety with well-being

	Model one Coping strategies	Model two Well-being	Model three Well-being	Model four Well-being
Anxiety	.010***	.000***		.000***
Coping Strategies			.000***	.000***
R^2	.014	.062	.174	.263
Adj R^2	.012	.060	.172	.260
F-Value	6.610	31.171	100.771	85.323

DV: Well-being

Model 1: Anxiety negatively and significantly affected to well-being ($B = -0.340$, $p < 0.001$).

Model 2: Anxiety positively and significantly affected coping strategies ($B = 0.275$, $p < 0.05$).

Model 3: Coping strategies positively and significantly affected well-being ($B = 0.243$, $p < 0.001$).

Model 4: Both anxiety and coping strategies positively and negatively yet significantly accounted for well-being ($B = -0.412$; $B = 0.362$, $p < 0.001$).

The findings of the two tests of moderating and mediating effects of coping strategies failed to confirm any significant moderating effect of coping strategies on the relationship between anxiety and subjective well-being. However, they confirmed that coping strategies as mediating effects on the relationship of anxiety with subjective well-being.

Discussion

The outbreak of COVID-19 continues to cause drastic changes to people's views, attitudes, lifestyles, while simultaneously escalating levels of financial pressures, disrupting economy, giving rise to new patterns of social behaviors, and forming

new challenges of social connectivity and individual well-being. The increased levels of anxiety and fear were the result of confusion surrounding the pandemic's duration, loss of jobs, an uncertain future, incessant news and health updates, and the relaying of tragic stories. Those overwhelming feeling and a sense of feeling out of control contributed greatly to the psychological situation of academics, especially in the peak stage of COVID-19, when the reported number of world COVID-19 cases had increased significantly. For example, up until March 29, 2020, there were more than 680,000 total cases with 31,920 deaths, 146,396 recoveries in over 202 countries (Kar et al., 2020). As per the World Health Organisation (WHO) situation report, more than half of the global deaths and infected cases occurred in the European region by the end of March 28, 2020 (WHO, 2020).

The pandemic also spread rapidly across many Muslim countries. For example, on April 30, 2020, there were reports of 22,753 new cases in Saudi Arabia; 12,481 in the United Arab Emirates; 13,409 in Qatar; and 4024 in Kuwait, while Bahrain (3040 new cases) and Oman (2348 new cases) had much less reported cases (Johns Hopkins University and Medicine, 2020). A recent survey by the International Federation of Red Cross conducted across seven countries showed that 51% of adults believe that the COVID-19 crisis has negatively affected their mental health. That means there is a direct relationship between the high number of cases and anxiety in the general public. The same study confirmed that nearly 2/3 of participants confirmed that attention to mental and physical health is more important now than any time before the COVID-19 crisis (ICRC, 2020). The COVID-19 pandemic continues to have serious impacts on the psychological lives of academics, including the psychological problems affecting their lives, career adjustment, academic performance, in addition to their anxiety and stress about their futures as well as that of the university and students.

Anxiety and Stress on Academics Well-Being

This study explored the impact of anxiety and stress of the COVID-19 pandemic on Muslim academics' subjective well-being. It investigated the correlations between coping and spirituality by assessing the effects of coping strategies Muslim academics use to cope with stress and anxiety. This study's findings revealed that 37.3% of the participants showed low levels of anxiety, 34.4% with medium levels of anxiety, and 28.3% with high levels of anxiety. Male participants showed more anxiety than their female counterparts, with anxiety level in those aged 25–40 significantly higher than other age groups. Anxiety among married participants was significantly higher than in other groups. These varying degrees of anxiety levels among males and females may be attributed to a skewed gender balance in the study.

This study's reported results indicate a negative yet significant relationship between anxiety and subjective well-being, in addition to the fact that coping strategies mediate this negative relationship. Previous studies demonstrated the negative relationship between anxiety and depressive disorders and quality of life (Mittal et al., 2006). Both anxiety and depressive disorders have been found to negatively impact a variety of areas, such as the perceived well-being and relationship

satisfaction (Stein & Heimberg, 2004). A study by Malone and Wachholtz, (2018) indicated a negative relationship between anxiety and depression levels to well-being.

Anxiety, stress, and panic are normal social behaviors occurring during crisis times and represent psychological reactions as people face real or imagined threats (Chao & Wang, 2020). In the case of COVID-19, people appear to have reacted differently. Some rejected the idea of a spreading virus; this may perhaps be a coping strategy of denial to eliminate anxiety and proceed with a perceived sense of normality with little care for governmental imposed preventive measures and procedures. Some religious groups continued to hold gatherings and produce supporting social media content citing that they feared God and did not cower to natural diseases. Numerous religious leaders were also reported to have announced that the disease was God's punishment for their sins (Vogel, 2020). One community in West Java reported a tearing out of prayer suspension announcements at a mosque in addition to countless similar reports of protest and rebellion. Such behaviors arise due to fatalistic and deterministic understandings of religion (Ebrahim et al., 2020). However, the increased death toll confirmed the existence of the pandemic even with the practice of isolation at home. Individuals have also resorted to different techniques and strategies to reduce their levels of anxiety. Others, however, accepted the reality of COVID-19, and despite their good health, began to grow anxious about death and uncertain about their health (Chao & Wang, 2020).

Coping of Muslim Academics with COVID-19

This study shows a positive and significant relationship between coping strategies and well-being among Muslim academics. The results suggest that they will increase well-being when one practices different coping strategies. In this study, coping strategies include performing prayer, religious activities, mediation, spending time with (family/friends/academic), and adaptation to reality. In the context of Muslim academics, prayer and religious activities were shaped according to an Islamic perspective. Countless studies have reported a positive correlation between religiosity and well-being. Furthermore, like other religions, Islam is associated with well-being given that it guides one on how to live one's life while offering comfort and support in good and bad times and giving meaning and identity to individuals (Achour et al., 2016b; Noor, 2008). Abdel-Khalek, (2010) found that religiosity among Muslim Kuwaiti adolescents is related to better health and well-being and less anxiety. In her study of 155 Javanese academic staff in Jogjakarta Indonesia, to explore the role of religious coping strategies as a moderator for job stress, Safaria et al., (2010) concluded a significant relationship between job insecurity and job stress with the moderator of religious coping. In another study on five Muslim female academicians from the University of Malaya, Malaysia, Achour, (2013) concluded that most Muslim women academicians used religiosity as a strategy to cope with various conflicts.

Muslims are expected to use prayer to transform their worries into supplication's positive power and convert the meanings of invocations they use to concrete

reality (Achour et al., 2016a). There is current evidence from several countries that prayer is the most used health intervention (e.g., Edman & Koon, 2000; Samano et al., 2004). Piana and Bordoni, (2020) noted that during the COVID-19 pandemic many people started collective online prayer groups for the safety of country and even the world at large. Catholic nuns reportedly prayed for the sick in hospitals, shared inspirational verses from the Bible verses, and prayed the rosary for people. Chirombe et al., (2020) researched a social media platform with 40 WhatsApp messages and found that 77.5% of the people turned to prayer, Bible reading, and Christian devotions as coping mechanisms during the lockdown. In the absence of a vaccine and no known cure for COVID-19, it is expected that people will turn to a higher power as a way of finding hope in a seemingly hopeless situation.

Several other strategies were used to cope with anxiety and stress during the outbreak. According to Liao, (2020), families kept themselves busy with online games, watching television, listening to music and self-reflection (Yau, 2020). The psychological benefits of music can be powerful and wide-ranging and include but not limited to, relieving stress and anxiety (Habibzadeh, 2015). Exercise is another effective coping strategy. Many mastered indoor workouts like yoga, skipping, and aerobics that they could practice alone or together with their family (Chirombe et al., 2020). Gulam, (2016) asserts that exercise improved one's body image and helped improve mood and reduce stress while improving the ability to cope with stress.

Conclusion

This study on anxiety and subjective well-being among Muslim academics highlighted coping strategies as a mediating variable in reducing anxiety and stress caused by COVID-19. Anxiety and stress during the pandemic were found to have significant yet negative effects on the subjective well-being of many people, including Muslim academics. People with lowered well-being experienced high levels of anxiety and stress during social distancing, isolation, and lockdown. During this time, stress and anxiety became serious contributors to a psychological crisis among people and Muslim academics in the context of this study. Coping strategies mediate the relationship between anxiety and subjective well-being. This research concluded that those who apply coping strategies properly are more likely to improve their overall well-being. Therefore, coping strategies for Muslims remain crucial to the management and reduction of anxiety and stress. Other mechanisms and strategies such as prayer, meditation, spending time with family, friends, and colleagues, and adapting to reality are also very important coping strategies.

Implications

Future qualitative research is needed to provide better insights on the impacts of COVID-19 on the many dimensions of the Muslim academic's life, such as happiness, performance, communications, life, and family satisfaction. This would be

instrumental in determining comprehensive strategies for coping with anxiety and stress during COVID-19 and achieving better subjective well-being. Universities should also be familiar with their academic staff and researchers' diverse emotional, psychological, and spiritual needs. They ought to further invest in research to serve their academics and researchers so as to better provide them with the support, orientation, and guidance necessary to better cope with anxiety and stress during COVID-19. No less critical is the need for well-designed support programs and regulatory policies that further reinforce academics' effective stress management and coping with anxiety and stress, especially during social isolation, lockdowns, or quarantines. Ideally, those will assist academics in managing anxiety and stress, maneuver in positive and supportive work conditions, achieve better well-being, and perform their jobs effectively.

Limitations

This study has focused on coping strategies of Muslim academic staff used to reduce anxiety and stress in response to COVID-19 and as such has limited its study to Muslim academic staff in selected universities from selected countries. It would be more valuable if this study could have further extended its scope to involve and compare other world universities, especially of different religious groups.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s10943-021-01422-3.

Declarations

Conflict of interest The authors reported no potential conflict of interest.

References

Abanoub, R., Yi, H., Liping, Z., & Steriani, E. (2020). COVID-19 Induced anxiety and protective behaviors during COVID-19 outbreak: Scale development and validation. *The Preprint Server for Health Sciences*. https://doi.org/10.1101/2020.05.05.20050419

Abdel-Khalek, A. M. (2010). Religiosity, subjective well-being, and neuroticism. *Mental Health, Religion and Culture, 13*, 67–79. https://doi.org/10.1080/13674670903154167

Achour, M. (2013). *Work-family conflict and Women's well-being: the role of religiosity*. Lap Lambert Academic Publishing.

Achour, M., Bensaid, B., & Nor, M. R. B. M. (2016a). An Islamic perspective on coping with life stressors. *Applied Research in Quality of Life, 11*(3), 663–685. https://doi.org/10.1007/s11482-015-9389-8

Achour, M., Nor, M. R. M., & MohdYusoff, M. Y. Z. (2016b). Islamic personal religiosity as a moderator of job strain and employee's well-being: The case of Malaysian academic and administrative staff. *Journal of Religion and Health, 55*(4), 1300–1311. https://doi.org/10.1007/s10943-015-0050-5

Achour, M., Muhamad, A., Syihab, A. H., Nor, M. R. M., & MohdYusoff, M. Y. Z. (2019). Prayer moderating job stress among muslim nursing staff at the university of malaya medical centre (UMMC). *Journal of Religion and Health*. https://doi.org/10.1007/s10943-019-00834-6

Ahmed, M. Z., Ahmed, O., Aibao, Z., Hanbin, S., Siyu, L., & Ahmad, A. (2020). Epidemic of COVID-19 in China and associated psychological problems. *Asian Journal of Psychiatry, 51*, 102092. https://doi.org/10.1016/j.ajp.2020.102092

Aiello, J. R. (1976). Visual interaction at extended distances. *Personality and Social Psychology Bulletin, 3*(1), 83–86. https://doi.org/10.1177/014616727600300113
Al-Bukhari (6973). *Sahih Bukhari Hadees Number 6973* - Chapter 91 - Chapter Belief Faith.
Almuaybid, A. J. (2016). An examination of the equilibrium theory of intimacy in dyadic interactions.
Al-Munajjid, M. S. (2006). Dealing with worries and stress. *Available at:* www.islam-qa.com/index.php.
Argyle, M., & Dean, J. (1965). Eye-contact, distance and affiliation. *Sociometry*. https://doi.org/10.2307/2786027
Arshad, H., & Shahed, S. (2019). Burden of one's gender: Perception of gender role strain in educated men and women. *Journal of Arts & Social Sciences, 6*(1), 68–94.
Baloran, E. T. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. *Journal of Loss and Trauma*. https://doi.org/10.1080/15325024.2020.1769300
Barhem, B., Younies, H., & Muhamad, R. (2009). Religiosity and work stress coping behavior of Muslim employees. *Education, Business and Society: Contemporary Middle Eastern Issues, 2*(2), 123–137. https://doi.org/10.1108/17537980910960690
Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. https://doi.org/10.1037//0022-3514.51.6.1173
Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226–244. https://doi.org/10.1037/0022-3514.61.2.226
Bhat, B. A., Khan, S., Manzoor, S., Niyaz, A., Tak, H. J., Anees, S. U. M., Gull, S., & Ahmad, I. (2020). A study on impact of COVID-19 lockdown on psychological health, economy and social life of people in Kashmir. *International Journal of Science and Healthcare Research, 5*(2), 36–46.
Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research, 116*, 183–187.
Carver, C., Scheier, M., & Weintraub, J. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267–283. https://doi.org/10.1037/0022-3514.56.2.267
Chao, W., & Wang, E. (2020). The panic emotions and coping strategies of in the background of COVID-19. *Journal of Psychiatry and Behavioral Sciences, 3*(1), 1040.
Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L., Sheng, C., Cai, Y., Li, X., Wang, J., & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry, 7*(4), e15–e16. https://doi.org/10.1016/S2215-0366(20)30164-4
Chew, Q. H., Wei, K. C., Vasoo, S., Chua, H. C., & Sim, K. (2020). Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: practical considerations for the COVID-19 Pandemic. *Tropical Journal of Pharmaceutical Research, 61*(7), 350–356. https://doi.org/10.11622/smedj.2020046
Chirombe, T., Benza, S., Munetsi, E., & Zirima, H. (2020). Coping mechanisms adopted by people during The COVID-19 lockdown in Zimbabwe. *Business Excellence and Management, 10*(1), 33–45.
Coffey, J. K., Wray-Lake, L., Mashek, D., & Branand, B. (2016). A longitudinal examination of a multidimensional well-being model in college and community samples. *Journal of Happiness Studies, 17*(1), 187–211. https://doi.org/10.1007/s10902-014-9590-8
Columbia University Resources. (2020). *Coping with the stress of a pandemic: A mental health guide for CUIMC students*. Columbia University Irving Medical Center.
Cummings, E. M., & Kouros, C. D. (2008). Stress and coping. In J. B. Benson (Ed.), *Encyclopedia of infant and early childhood development* (pp. 267–281). Academic Press.
Dana Spinant. (2020). *Coronavirus Global Response: €7.4 billion raised for universal access to vaccines*. European Commission. https://ec.europa.eu/commission/presscorner/detail/en/ip_20_797.
Diener, E. (2009). *The science of well-being: The collected works of Ed Diener* (*Vol. 37*). Springer.
Diener, E. (2021). Happiness: the science of subjective well-being. In R. Biswas-Diener & E. Diener (Eds.), *Noba textbook series: Psychology.* DEF publishers.
Ebaugh, H. R. F., Richman, K., & Chafetz, J. S. (1984). Life crises among the religiously committed: Do sectarian differences matter? *Journal for the Scientific Study of Religion, 23*, 19–31. https://doi.org/10.2307/1385454
Edman, J. L., & Koon, T. Y. (2000). Mental illness beliefs in Malaysia: Ethnic and intergenerational comparisons. *International Journal of Social Psychiatry, 46*(2), 101–109. https://doi.org/10.1177/002076400004600203

Ebrahim, S. H., Ahmed, Q. A., Gozzer, E., Schlagenhauf, P., & Memish, Z. A. (2020). COVID-19 and community mitigation strategies in a pandemic. *The BMJ*. https://doi.org/10.1136/bmj.m1066

Fadel, S. (2020). COVID-19 response for youth involved in MA's legal system: Stakeholder update #2. [presentation slides]. https://www.cfjj.org/covid19-and-jj.

Fox, J., & Warber, K. M. (2014). Social networking sites in romantic relationships: Attachment, uncertainty, and partner surveillance on Facebook. *Cyberpsychology, Behavior, and Social Networking, 17*(1), 3–7. https://doi.org/10.1089/cyber.2012.0667

Franzi, R. (2018). Stress vs. Anxiety – Knowing the Difference Is Critical to Your Health, Mental Health First Aid, https://www.mentalhealthfirstaid.org/external/2018/06/stress-vs-anxiety/.

Fu, W., Wang, C., Zou, L., Guo, Y., Lu, Z., Yan, S., & Mao, J. (2020). Psychological health, sleep quality, and coping styles to stress facing the COVID-19 in Wuhan, China. *Translational Psychiatry, 10*(1), 1–9. https://doi.org/10.1038/s41398-020-00913-3

Gulam, A. (2016). Need, importance and benefits of exercise in daily life. *International Journal of Physical Education, Sports and Health, 3*(2), 127–130.

Gunbayi, I. (2014). Job stressors and their effects on academic staff: A case study. *International Journal on New Trends in Education and Their Implications, 5*(4), 58–73.

Habibzadeh, N. (2015). The effect of music on mental and physical performance. *Physical Activity Review, 3*, 32–36. https://doi.org/10.16926/par.2015.01.04

Hassannia, L., Taghizadeh, F., Moosazadeh, M., MehranZarghami, M., Taghizadeh, H., Dooki, A. F., Fathi, M., Navaei, R. A., & Hedayatizadeh-Omran, A. (2020). Anxiety and depression in health workers and general population during COVID-19 epidemic in IRAN: A web-based cross-sectional study. *The Preprint Server for Health Sciences*. https://doi.org/10.1101/2020.05.05.20089292

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

Health and Safety Executive. (2020). Work-related stress, anxiety or depression statistics in Great Britain, Annual Statistics, https://www.hse.gov.uk/statistics/causdis/stress.pdf.

ICRC. (2020). The importance of mental health and psychosocial support during COVID-19. International Federation of Red Cross, https://www.icrc.org/en/document/crisis-mental-health-COVID-19.

Jakovljevic, M., Bjedov, S., Jaksic, N., & Jakovljevic, I. (2020). COVID-19 pandemia and public and global mental health from the perspective of global health security. *Psychiatria Danubina, 32*(1), 6–14. https://doi.org/10.24869/psyd.2020.6

Johns Hopkins University and Medicine. (2020). Coronavirus Resource Center (2020). (JHU CCSE). https://data.humdata.org/dataset/novel-coronavirus-2019-ncov-cases

Kar, S. K., Arafat, S. Y., Kabir, R., Sharma, P., & Saxena, S. K. (2020). Coping with mental health challenges during COVID-19. *Coronavirus disease 2019 (COVID-19)* (pp. 199–213). Springer.

Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *Lancet Psychiatry, 7*(3), e14–e14. https://doi.org/10.1016/S2215-0366(20)30047-X

Kidd, T., Hamer, M., & Steptoe, A. (2011). Adult attachment style and cortisol responses across the day in older adults. *Psychophysiology, 50*, 841–847. https://doi.org/10.1111/psyp.12075

Krantz, D. S., Neil, E. G., & Andrew, B. (1985). Health Psychology. *Annual Review of Psychology, 36*(1), 349–383.

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53*(1), 27–35. https://doi.org/10.1080/00131910120033628

Lazarus, R. S., & Folkman, S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology, 54*(3), 466–475.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.

Lewnard, J. A., & Lo, N. C. (2020). Scientific and ethical basis for social-distancing interventions against COVID-19. *The Lancet Infectious Diseases, 20*(6), 631–633. https://doi.org/10.1016/S1473-3099(20)30190-0

Liao, S. (2020). The evenings are empty.' People in China are using video games to keep each other company. CNN Business. https://edition.cnn.com/2020/02/13/intl_business/gaming-china-coronavirus/index.html.

Liu, J. J., Bao, Y., Huang, X., Shi, J., & Lu, L. (2020). Mental health considerations for children quarantined because of COVID-19. *The Lancet Child & Adolescent Health, 4*(5), 347–349. https://doi.org/10.1016/S2352-4642(20)30096-1

Malone, C., & Wachholtz, A. (2018). The relationship of anxiety and depression to subjective well-being in a Mainland Chinese Sample. *Journal of Religion and Health, 57*(1), 266–278. https://doi.org/10.1007/s10943-017-0447-4

McAlonan, G. M., Lee, A. M., Cheung, V., Cheung, C., Tsang, K. W., Sham, P. C., & Wong, J. G. (2007). Immediate and sustained psychological impact of an emerging infectious disease outbreak on health care workers. *The Canadian Journal of Psychiatry, 52*(4), 241–247. https://doi.org/10.1177/070674370705200406

McKean, E. (2005). *New Oxford American Dictionary*. Oxford University Press.

Mirsaleh, Y. R., Rezai, H., Kivi, S. R., & Ghorbani, R. (2010). The role of religiosity, coping strategies, self-efficacy and personality dimensions in the prediction of Iranian undergraduate rehabilitation interns' satisfaction with their clinical experience. *Clinical Rehabilitation, 24*(12), 1136–1143. https://doi.org/10.1177/0269215510375907

Mittal, D., Fortney, J. C., Pyne, J. M., Edlund, M. J., & Wetherell, J. L. (2006). Impact of comorbid anxiety disorders on health-related quality of life among patients with major depressive disorder. *Psychiatric Services, 57*(12), 1731–1737. https://doi.org/10.1176/ps.2006.57.12.1731

Myers, D. G. (2005). *Stress and health, exploring psychology* (6th ed.). Worth Publishers.

Noor, N. M. (2008). Work and women's well-being: Religion and age as moderators. *Journal of Religion and Health, 47*, 476–490. https://doi.org/10.1007/s10943-008-9188-8

Olivera-La Rosa, A., Chuquichambi, E. G., & Ingram, G. P. (2020). Keep your (social) distance: Pathogen concerns and social perception in the time of COVID-19. *Personality and Individual Differences*. https://doi.org/10.1016/j.paid.2020.110200

Park, C. L., & Adler, N. E. (2003). Coping style as a predictor of health and well-being across the first year of medical school. *Health Psychology, 22*, 627–631. https://doi.org/10.1037/0278-6133.22.6.627

Patel, A., & Jernigan, D. B. (2020). Initial public health response and interim clinical guidance for the 2019 novel coronavirus Outbreak-United States, December 31, 2019–February 4, 2020. *Morbidity and Mortality Weekly Report, 69*(5), 140–146. https://doi.org/10.15585/mmwr.mm6905e1

Piana, F., & Bordoni, L. (2020, March 27). Coronavirus: the women religious on the frontlines. Vatican News. https://www.vaticannews.va/en/church/news/2020-03/coronavirus-women-religious-nurses-prayers-italy.html.

Prentice, C., Zeidan, S., & Wang, X. (2020). Personality, trait EI and coping with COVID 19 measures. *International Journal of Disaster Risk Reduction, 51*, 101789. https://doi.org/10.1016/j.ijdrr.2020.101789

Rawat, N. S., & Choudhary, K. C. (2020). Coping strategies with stress and anxiety of tri-pillar of the education system in COVID-19 pandemic period. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3596912

Rose, B. M., Holmbeck, G. N., Coakley, R. M., & Franks, E. A. (2004). Mediator and moderator effects in developmental and behavioral pediatric research. *Journal of Developmental & Behavioral Pediatrics, 25*(1), 58–67. https://doi.org/10.1097/00004703-200402000-00013

Rubin, G. J., & Wessely, S. (2020). The psychological effects of quarantining a city. *The BMJ*. https://doi.org/10.1136/bmj.m313

Rundle, A. G., Park, Y., Herbstman, J. B., Kinsey, E. W., & Wang, Y. C. (2020). COVID-19–related school closings and risk of weight gain among children. *Obesity, 28*(6), 1008–1009. https://doi.org/10.1002/oby.22813

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069

Safaria, T., Othman, A. B., & Wahab, M. N. A. (2010). Religious coping, job insecurity and job stress among Javanese academic staff: A moderated regression analysis. *International Journal of Psychological Studies, 2*(2), 159–169. https://doi.org/10.5539/ijps.v2n2p159

Sahu, P. (2020). Closure of universities due to Coronavirus Disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus, 12*(4), e7541. https://doi.org/10.7759/cureus.7541

Samano, E. S. T., Goldenstein, P. T., Ribeiro, L. D. M., Lewin, F., ValesinFilho, E. S., Soares, H. P., & Giglio, A. D. (2004). Praying correlates with higher quality of life: results from a survey on complementary/alternative medicine use among a group of Brazilian cancer patients. *Sao Paulo Medical Journal, 122*(2), 60–63.

Salve, S. (2020). A Personal Reflection on COVID-19's Spiritual Impact, International Health Policies. https://www.internationalhealthpolicies.org/blogs/a-personal-reflection-on-COVID-19s-spiritual-impact/.
Seligman, M. E. P. (2002). *Authentic happiness*. The Free Press.
Seligman, M. E. P. (2011). *Flourish*. The Free Press.
Selye, T. (1976). *The stress of life*. McGraw-Hill.
Shalhub, S., Mouawad, N. J., Malgor, R. D., Johnson, A. P., Wohlauer, M. V., Coogan, S. M., & Sheahan, M. G., III. (2020). Global vascular surgeons experience, stressors, and coping during the COVID-19 Pandemic. *Journal of Vascular Surgery, 73*(3), 762–771. https://doi.org/10.1016/j.jvs.2020.08.030
Srole, L., & Fischer, A. K. (Eds.). (1978). *Mental health in the metropolis: The midtown Manhattan study* (Rev.). New York University Press.
Stavrianea, A., & Kamenidou, I. (2017). Religion in the context of economic crisis: The generation's z perspective. *International Journal of Strategic Innovative Marketing, 3*(3), 56–68. https://doi.org/10.15556/ijsim.03.03.005
Stein, M. B., & Heimberg, R. G. (2004). Well-being and life satisfaction in generalised anxiety disorder: Comparison to major depressive disorder in a community sample. *Journal of Affective Disorders, 79*, 161–166. https://doi.org/10.1016/S0165-0327(02)00457-3
Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., & Liu, S. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control, 48*(6), 592–598. https://doi.org/10.1177/0020764020942788
Vogel, D. (2020). Tornado-Nachfolge: Fähigkeiten und Anpassungszeiträume sind entscheidend.
Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health, 17*(5), 1729. https://doi.org/10.3390/ijerph17051729
Weiner, J. A., Peter, R. S., Johnson, D. J., Louie, P. K., Harada, J. K., McCarthy, M. H., Germscheid, N., Cheung, J. P. Y., Neva, M. H., El-Sharkawi, M., Valacco, M., Sciubba, D. M., Chutken, N. B., An, H. S., & Samartzis, D. (2020). Learning from the past: Did experience with previous epidemics help mitigate the impact of COVID-19 among spine surgeons worldwide? *European Spine Journal, 29*, 1789–1805. https://doi.org/10.1007/s00586-020-06477-6
WHO (2020) Coronavirus disease (COVID-19) advice for the public: mytbusters. World Health Organization. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/mythbusters.
Weisskirch, R. S., & Delevi, R. (2012). Its ovr b/nun me: Technology use, attachment styles, and gender roles in relationship dissolution. *Cyberpsychology, Behavior, and Social Networking, 15*(9), 486–490. https://doi.org/10.1089/cyber.2012.0169
Wong, M. C., Teoh, J. Y., Huang, J., & Wong, S. H. (2020). The potential impact of vulnerability and coping capacity on the pandemic control of COVID-19. *The Journal of Infection, 81*(5), 816–846. https://doi.org/10.1016/j.jinf.2020.05.060
Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Chee, H. N. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry, 7*(3), 228–229. https://doi.org/10.1016/S2215-0366(20)30046-8
Yau, E. (2020). Coronavirus lockdown: how to cope – lessons from China on using the time positively, for self-discovery, learning to cook, working out. South China Morning Post. https://www.scmp.com/lifestyle/healthwellness/article/3077699/coronavirus-lockdown-how-cope-lessons-china-using-time.
Zahid, M. A. (2020). COVID-19: An Islamic Prescription, The Muslim Vibe (TMV).https://themuslimvibe.com/faith-islam/COVID-19-an-islamic-prescription.
Zhu, N., Zhang, D., Wang, W., Li, X., Yang, B., Song, J. X., Zhao, B., Huang, W., Shi, R., Lu, P., Niu, F., Zhan, X., Ma, D., Wang, W., Xu, G., Wu, G. F., Gao, W., & Tan, W. (2019). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of Medicine, 382*(8), 727–733. https://doi.org/10.1056/NEJMoa2001017
Zimbardo, P. G., Robert, L. J., & Weber, A. (2003). *Psychology: Core concepts*. Allyn & Bacon.

Authors and Affiliations

Meguellati Achour[1] · Dahmane Souici[2] · Benaouda Bensaid[3] · Nurulhuda Binti Ahmad Zaki[4] · Ameen Ahmed Abdullah Alnahari[4]

Benaouda Bensaid
benaouda.bensaid@izu.edu.tr

[1] Laboratory of Economic Studies On Industrial Zones in Light of the New Role of the University, Department of Management, Faculty of Economics, Business and Management Sciences, University of Mohamed, El Bachir El-Ibrahimi, Bordj-Bou Arreridj, El Anceur, Algeria

[2] Department of Psychology, Educational Sciences and Orthophony, Faculty of Human and Social Sciences, University of Batna 1, Batna, Algeria

[3] Istanbul Sabahattin Zaim University, Istanbul, Turkey

[4] Fiqh and Usul Department, Academy of Islamic Studies, University of Malaya, 50603 Kuala Lumpur, Malaysia