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The Role of Positive Religious Coping as a Moderator on the Effect of Perceived Stress and Symptoms of Depression: A Study on Indonesian Students Quarantined at Home during the COVID-19 Pandemic

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Abstract

Students have faced widespread changes and challenges as a result of the coronavirus disease 2019 (COVID-19) pandemic. How students cope with these disorders is important in determining the ongoing impact of the pandemic on mental health and well-being. This research consists of two studies, namely correlation and experiment. In the correlation study, the researcher wanted to investigate the role of positive religious coping as a mediator on the effect of perceived stress on depressive symptoms among Indonesian students, using the hierarchical regression analysis method. A total of 341 samples in this study were obtained by convenience sampling technique, which focused on students who were infected with the COVID-19 virus, and were or had been quarantined at home for 14 days. Respondents completed online self-report measurements. The results of the analysis show that positive religious coping acts as a mediator on the effect of perceived stress on depressive symptoms among students (β = -0.061; p = 0.029). In an experimental study, researchers wanted to see the role of positive religious coping training in reducing stress and symptoms of depression, which was tested by repeated measure ANOVA. This study uses a nonrandomized pretest posttest control group design. A total of 60 respondents (30 experiments and 30 controls) in this study were recruited using purposive sampling technique. The results of data analysis showed that positive religious coping training was effective in reducing stress ($F_{(2;58)}$ = 28.1; p < .05; η^2p = .492), and depression ($F_{(2;58)}$ = 14.9; p < .05; η^2p = .340), for students who are undergoing quarantine due to the COVID-19 pandemic. The implications and limitations have been discussed.

Keywords: Depressive symptoms; perceived stress; positive religious coping; quarantine; students.

Introduction Section

Coronavirus 2019 (COVID-19) was first reported in late December 2019, in Wuhan China, and then spread worldwide (Xu et al., 2020; Qiu, Zhou, Liu, & Yua, 2020). Indonesia announced its first positive case of COVID-19 on March 2, 2020 (Brahma, 2020). The COVID-19 pandemic has become a challenging trauma for every individual and a threat to people's lives globally. The World Health Organization (WHO, 2021) reports that as of December 10, 2021, a total of 267.865.289 cases, including 5.285.888 confirmed deaths. Statistically, COVID-19 cases in Indonesia on December 10, 2021 reported that there were still 4.258.980 confirmed cases, 4.109.865 recovered, and 143.929 of them died (https://covid19.go.id/peta-sebaran-covid19).

In breaking the chain of transmission of this epidemic, WHO implemented several health protocols to support mental and social well-being during the spread of COVID-19 (Brahma, 2020). The Indonesian government has made various efforts to accelerate the handling of COVID-19 cases, one of which is by requiring people to stay at home (quarantine at home). Quarantine at home is a policy imposed by the government to reduce the spread of COVID-19 (Nugraha et al., 2021), but in reality so far it has not had a significant impact in reducing the spread of the outbreak, and even causes psychological problems, such as causing stress and in

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turn. trigger the emergence of depressive symptoms, which have been widely reported in college students (Huang & rong Liu, 2020) during the spread of the COVID-19 outbreak.

Tang, Hu, Yang, and Xu (2021) reported that as many as 2229 (89.7%) college students spent time at home during the COVID-19 pandemic in China, spending 2 to 4 weeks, and showed 2.9% (n = 73) students who report stress after quarantine at home. Individuals who undergo self-isolation tend to experience stress by 65.6% of Indonesians (Nugraha et al., 2021), 2.7% of Chinese people (Tang et al., 2020), and 28.9% of Canadians (Hawryluck et al., 2004). According to Reynolds et al. (2008) reported that the longer people are isolated, the higher the likelihood of psychological distress they will experience. Individuals who are quarantined at home will reduce interpersonal communication, so that feelings of loneliness in individuals increase, consequently causing symptoms of depression (Ge et al., 2017).

This outbreak can pose several psychological risk factors in individuals living in infected areas such as anxiety, stress, and depression (Qiu et al., 2020). According to behavioral immune system (BIS) theory, during a pandemic, individuals tend to develop negative emotions (eg, denial, rejection, anxiety, stress, etc.), as well as negative cognitive assessments of self-protection. Furthermore, according to the theory of stress and perceived risk, situations that threaten public health trigger an increase in negative emotions which also affect cognitive assessment (Li et al., 2020). In addition, as individuals are required to stay at home or self-quarantine, growing feelings of isolation and social separation can take over their minds, which, as research shows, has a negative impact on psychological well-being (Ammerman et al., 2021). Individuals undergoing quarantine are found to suffer from various mental health problems such as anxiety, depression, mood disorders, psychological distress, post-traumatic stress disorder (PTSD), insomnia, and fear (Hossain et al., 2020). Fear of the unknown along with thoughts of being infected increases anxiety and stress in individuals (Ornell et al., 2020).

Due to the emergence of psychological problems (stress and depression) experienced by students during quarantine at home, it is necessary to investigate the factors that can reduce this problem. One of the protective factors (interventions) that are predicted to overcome this problem is positive religious coping. Previous literature found positive religious coping as a protective factor for several psychological disorders such as depression, anxiety, and PTSD (Assari, 2014; Carpenter et al., 2012; Feder et al., 2013; Ng et al., 2017). Positive religious coping was also found to have a positive relationship with health problems related to quality of life (Cruz et al., 2016; Henslee et al., 2015; Pedersen et al., 2013).

The lack of previous studies in explaining the transition to mental health problems for students who were quarantined at home due to exposure to the COVID-19 virus, which ultimately led to stress and in turn caused symptoms of depression. So that researchers are interested in testing the latest theoretical models based on empirical data in the field, in explaining the dynamics of whether or not psychological problems arise for students. This study aims to determine the effect of the duration of quarantine at home, perceived stress, on symptoms of depression. Then, this study also wanted to examine the effect of positive religious coping intervention training in reducing perceived stress and depressive symptoms for students who were in quarantine. In addition, this study also attempted to examine the duration of quarantine, perceived stress, on depressive symptoms moderated by positive religious coping.

Literature Review

Perceived stress and depressive symptoms

Facing a stressful crisis situation such as a pandemic causes increased stress which in turn has the potential to trigger depression. It is known that stressful life events are associated with the onset of depressive episodes (Kendler, Karkowski, & Prescott, 1999) and an increase in depressive symptoms in adolescence (Grant et al., 2003; Grant et al., 2004; Trem & Cole, 2000). . The first episode of depression, which is particularly relevant to the emergence of depression in adolescence, is most likely triggered by a negative life event or a threatening environment (Monroe & Harkness, 2005). Exposure to stress predicts the onset and course of depression (Kendler, Karkowski, & Prescott, 1999), contemporary cognitive-behavioral theories of depression argue that individual differences in experiences and responses to stress increase the risk of developing depressive symptoms (Abela, Aydin, & Auerbach, 2006; Hankin et al., 2004; Hyde, Mezulis, & Abramson, 2008).

H1: There is a positive and significant effect between perceived stress and depressive symptoms.

Quarantine duration, perceived stress, and depressive symptoms

The COVID-19 pandemic has become a challenging trauma for everyone and a threat to people's lives globally. One of the policies implemented to prevent the transmission of this epidemic is to quarantine at home. However, this policy raises severe psychological problems for the individual. In the mental health crisis caused by the coronavirus, self-quarantined students may try to adapt by repressing, denying, or distancing themselves from their own emotional needs (Spaccarellig, 1994). This mechanism creates a bad emotional state, so that it will trigger stress. Other information, when individuals are quarantined at home to break the chain of the spread of the virus, it will inhibit interpersonal communication, causing feelings of depression (stress) and loneliness, which ultimately lead to symptoms of depression (Ge et al., 2017).

H2: There is a positive and significant effect between the duration of quarantine on depressive symptoms due to perceived stress.

Religious coping

Religion can have a positive impact on physical and mental health. However, religion also has a downside that can have a negative impact and potentially exacerbate problems (Pargament et al., 2001). For example, a form of positive religious coping is showing a secure attachment to God, a belief that life has the highest meaning, and a sense of spiritual attachment to others. While the form of negative religious coping is showing a shaken world view which includes religious conflicts and tensions (Abu-Raiya et al., 2019). Religious coping is best defined as a belief or attitude that is used to deal with a problem that is detrimental and if the problem has exceeded the resource limits of the individual (Lee et al., 2014). Based on dispositional and situational coping theories, individuals generally respond to stressors with their preferred coping strategies that usually remain relatively consistent across various situations. Correspondingly, religious coping has usually been conceptualized with dispositions or traits that indicate the extent and manner in which individual beliefs are involved in the problem-solving process (Schaefer & Gorsuch, 1993). Individuals who apply positive religious coping methods are considered to be better able to adjust to and deal with life stressors (Koenig et al., 1988). Correspondingly, they also have high levels of resistance to depression and anxiety disorders (Min et al., 2013). Conversely, individuals who apply negative religious coping methods may become alcoholics and experience psychological distress (Chan & Rhodes., 2013; Holt et al., 2014).

In connection with this study, religiosity can be a protective factor if individuals overcome their fears and anxieties with full trust in God and if they are patient and grateful for all the circumstances, sorrows, and worries they experience (Ibrahim, 2020). Correspondingly, increasing faith in religion deeply can be done through prayer, reading the scriptures, and listening to inspirational programs can also help individuals, because it was found that religious practice is associated with reduced anxiety and stress, and creates greater hope (Koenig, 2020). In addition, the importance of using religious interventions described by McCarthy and Houg (2008) that religious interventions are useful for creating a relationship between individuals and God who has powers beyond human control. It can foster hope and confidence. The use of religious beliefs is also very helpful in the recovery process when individuals are experiencing psychological problems (Swank & Pargament, 2005).

Positive religious coping and perceived stress

Perceived stress is defined as a subjective condition experienced by individuals who see an imbalance between the problems addressed to them and the resources available to deal with these problems (Lazarus 1990). According to various literatures, there are different strategies in dealing with perceived stress, and one of those strategies is positive religious coping. Arevalo et al. (2008) found that positive religious coping methods were associated with reduced perceived stress. In addition, the results of another study found that religiosity was positively related to peace, which was then significantly positively related to reduced stress (Peres et al., 2018).

Lee (2014) found that there was a negative correlation between spiritual well-being and the participants' perceived stress. In addition, positive religious coping was positively correlated with quality of life (QOL) and reduced stress, while negative religious coping was negatively correlated with QOL and increased stress (Gardner et al., 2014). Because COVID-19 is a new epidemic, so currently there are no studies examining interventions to reduce stress experienced by students related to the spread of COVID-19 in Indonesia, while undergoing quarantine at home.

H3a: Positive religious coping training is effective for reducing perceived stress by students while undergoing quarantine at home.

Positive religious coping and depressive symptoms

Studies related to religiosity and depression support the conclusion that certain aspects of religiosity are correlated with reduced depression (Ahles et al., 2016; Braam et al., 2010). Individuals who tend to be active in religious communities and attach great importance to their faith are less at risk for depression. Even if they are depressed, they are able to recover more quickly than non-religious individuals. Thus, religious involvement has an important role in helping individuals to cope with the impact of life's stresses (Agbaria, 2014). According to Ramirez et al. (2012) questioned if positive religiosity was independently associated with psychological distress and quality of life on the health of chronic disease patients. They found that religious struggle was associated with symptoms of depression and anxiety, while positive religious coping was associated with better mental and social well-being overall. In addition, it was also found that religious struggle was able to reduce depressive symptoms among adults (Abu-Raiya et al., 2015).

In line with that, Areba et al. (2018) investigated the relationship between positive and negative religious coping with symptoms of depression and anxiety, physical and emotional well-being among university students. They found that religiosity was positively associated with a decrease in depressive symptoms. Rosmarin et al. (2013) also found that positive religious coping was associated with a significantly greater reduction in depression and anxiety as well as an increase in well-being. Kopacz et al. (2016) found that negative religious coping was associated with suicide risk and suicidal thoughts. In addition, research results show that positive religiosity is associated with higher levels of psychological well-being and lower levels of depression (Ahrens et al., 2010). In another study, Hashmi et al. (2020) found that religious clichés and negative stigma against COVID-19 in some developing countries have resulted in the avoidance of preventive measures implemented against the virus. For this reason, this study will provide treatment to students who experience depression in the form of positive religious coping interventions.

H3b: Positive religious coping training is effective for reducing symptoms of depression for students due to undergoing quarantine at home.

Positive religious coping as moderator

The effect of stress on depression can be moderated by religious coping as indicated by the presence of religious commitment. Individuals who have a high religious commitment, as evidenced by involvement in religious activities such as praying, dhikr, prayer, participating in religious events, and showing that belief in religion is very important for them, which represents the form of religious coping used. Religious coping is a powerful strategy that helps deal with stressful situations (Ano & Vasconcelles, 2005; Taheri-Kharameh et al., 2016), which consists of a multi-dimensional construct, and can have both positive and negative effects (Pargament et al., 1998; Taheri- Kharameh et al., 2016) for the lives of individuals who are in threatening and stressful situations. In the COVID-19 situation, it is more appropriate to apply positive religious coping, this is because it can contribute to individual psychosocial adjustment (Ano & Vasconcelles, 2005; Pargament et al., 2004). Positive religious coping can help increase self-confidence and ability to cope with crises (Olcer & Oskay, 2015). In addition, individuals who use more positive coping skills are effective in reducing the risk of depression after exposure to stressful events, whereas negative coping focuses more on cognitive strategies in exacerbating the effects of stress and increasing depressive symptoms (Hankin & Abramson, 2001; Hyde, 2001). Mezulis, &

Abramson, 2008). Eliassen, Taylor, and Lloyd (2005) found that positive religious coping is a response to stressors that can predict a decrease in depression in individuals. In addition, research has shown that the impact of religious behavior on depression depends on the level of religious commitment (Eliassen et al., 2005; Carpenter et al., 2012) or interests (Agishtein et al., 2013), which are part of positive religious coping. This can be interpreted that positive religious coping will reduce depression caused by stress due to the quarantine that individuals undergo at home. According to the theories that have been described, positive religious coping factors can reduce the development of depression by moderating the effect of stress on depression.

H4: Positive religious coping moderates the effect of perceived stress during quarantine on depressive symptoms.

Theoretical framework

Quarantine at home is a policy imposed by the government to reduce the spread of COVID-19 does not have a significant impact in reducing the spread of COVID-19, but rather causes psychological problems, namely causing stress and eventually causing symptoms of depression. Individuals undergoing quarantine tend to experience stress and, in turn, develop symptoms of depression (Nugraha et al., 2021; Tang et al., 2020; Hawryluck et al., 2004). According to Mushquash and Grassia (2021) found that there is a relationship between stress and depression during the COVID-19 pandemic. This study reports that due to ongoing student anxiety and uncertainty related to COVID-19, it creates stress which in turn will cause symptoms of depression. This increase in stress levels and severity of depressive symptoms is consistent with cross-sectional data (Hawryluck et al., 2004; Jalloh et al., 2018). There are several explanations for the significant increase in stress levels and depressive symptoms in response to Covid-19. First, the fear of infection by a poorly understood disease with an uncertain prognosis and without efficient therapy. Second, the implementation of unusual measures to curb the spread of Covid-19 infection. Third, the uncertainty of whether the government is managing the Covid-19 pandemic properly. Fourth, exposure to Covid-19 information and misinformation from the media. And fifth, concerns about employment and financial stability. This suggests that significant efforts need to be made to understand the risk factors and other mechanisms underlying the increase in depressive symptoms due to stress during quarantine.

Lazarus (1966) suggests that when a stressor is experienced by an individual, he or she will evaluate whether the event is threatening, and if so, whether they have the appropriate resources to deal with the event. Once the assessment is made, the individual can use coping strategies to reduce the harm from the perceived stress. Coping is a behavioral effort to master, reduce, or tolerate the demands created by interactions with a stressful environment (Brennan, 2001), and religious constructs seem to be a unique dimension of the coping process (Brennan, 2001). Religious coping is a powerful strategy that helps deal with stressful situations, which has a multi-dimensional construct, namely positive and negative (Taheri-Kharameh et al., 2016). Positive religious coping is effective in reducing the risk of depression after exposure to COVID-19, while negative ones are more oriented towards cognitive strategies that exacerbate individual psychological effects, thereby creating stress and increasing depressive symptoms (Hankin & Abramson, 2001; Hyde, Mezulis, & Abramson, 2008) . Positive religious coping as a protective factor for several psychological disorders such as depression, anxiety, and PTSD (Assari, 2014; Carpenter et al., 2012; Feder et al., 2013; Ng et al., 2017). Positive religious coping was also found to have a positive relationship with health problems related to quality of life (Cruz et al., 2016; Henslee et al., 2015; Pedersen et al., 2013). According to behavioral immune system (BIS) theory, during the COVID-19 pandemic individuals are more likely to develop negative emotions (e.g., aversion, anxiety, etc.), as well as negative cognitive assessments of self-protection. Furthermore, according to the theory of stress and perceived risk, public health emergencies trigger an increase in negative emotions that also affect cognitive assessment (Li et al., 2020). By doing positive religious coping individuals can reconstruct, think positively, by diverting themselves from the source of stress, (Connor-Smith et al., 2000). Fear of the unknown and thoughts of being infected can increase anxiety and stress in individuals, which in turn intensifies individual depressive symptoms (Ornell et al., 2020).

Positive religious coping can moderate the negative effects of stress and help individuals reduce the appearance of depressive symptoms. Pearlin and Schooler (1978) suggested that positive religious coping serves

to: (1) change the meaning of a situation or event, make it less stressful, (2) modify or eliminate conditions that cause problems, or (3) manage the environment to provide an emotional response. positive for stressors. Religious phenomena have received attention as a source of stress buffers (Levin et al., 1995; McAdoo 1995). There are logical and theoretical reasons why positive religious coping should have an impact on the relationship of stress outcomes to depressive symptoms. Since attributions to a purposeful God can help individuals to understand stressful events and can facilitate their adaptation to stressful circumstances, it is logical to conclude that those who attribute stressful states to purposeful God feel less depressed. For example, Park and Cohen's (1993) research found that religious attribution is associated with viewing stressful events in a more adaptive way, and this ultimately encourages individuals to avoid depressive states.

The present study

In short, the main objective of this study is to test whether positive religious coping is effective in reducing stress and depressive symptoms due to quarantine as evidenced by two designs, namely a cross-sectional survey design and an experimental one. The purpose of this study is to form a conceptual model (see Fig. 1).

Methods

Study 1

Design and samples

This study uses a cross-sectional survey design consisting of a series of online-based self-report surveys for students in Indonesia. The sampling technique used was convenience sampling, which focused on students infected with the COVID-19 virus, and currently undergoing quarantine for 14 days. A total of 341 students (74 male and 267 female; M_{age} = 20.2 years), taken from twenty universities in Indonesia, with 65.4% of students coming from private universities, and 34.6% of students coming from higher education institutions. in the state, at the level of undergraduate education as many as 274 (80.4%), and masters as many as 67 (19.6%).

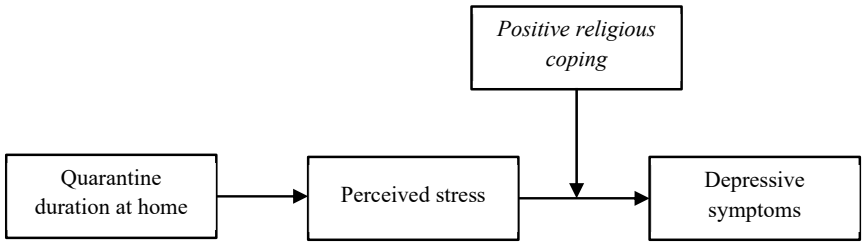

Fig. 1. Research conceptual model

Procedure

The survey can be accessed on the G-Form link that has been created by the researcher. Prior to conducting the survey, respondents were informed about the research objectives, procedures, data confidentiality, and were also informed that this research was voluntary. Detailed information related to this study has been explained to all participants on the first page, followed by filling out informed consent as a sign that they gave their consent to participate in the study, by selecting the words "Yes" or "No". All respondents will only be asked to fill in their initials. However, respondents will be asked to provide their phone number or email for future purposes. After filling out the informed consent, participants were asked to report some additional information about their demographic data. Next, they will be directed to the next page and will fill in a scale of quarantine duration, stress, positive religious coping, and symptoms of depression.

Instrument

Quarantine duration at home

The duration of quarantine at home is known based on a question given by the researcher to respondents adapted from (Tang et al., 2020) namely "How much time on average have you spent in quarantine at home, since you were infected with the COVID-19 outbreak?". The answers given by the respondents were grouped according to five categories, namely above 4 weeks, 2 to 4 weeks, 1 to 2 weeks, under 1 week, and None.

Perceived stress

The measuring instrument used to reveal perceived stress was tested with the perceived stress scale (PSS), which was developed by Cohen et al. (1983), and consists of ten items, which measure the extent to which situations in a person's life are rated as stressful. The items are designed to find out how unpredictable, uncontrollable, and overloaded respondents find their lives. Items on the PSS scale ask about your feelings and thoughts over the past month (eg, "In the past month, how often have you felt unable to control the important things in your life?"). In each case, respondents were asked how often they felt a certain way. Each item is rated on a 5-Point Likert scale from 1 (Never) to 5 (Never), indicating the extent to which they support a particular belief. Cronbach value (α = .80) indicates a high level of reliability for the total scale (Mahamid & Bdier, 2021).

Positive religious coping

The measuring tool used to reveal positive religious coping is the Psychological Measure of Islamic Religiousness Scale (PMIR), which focuses on the Islamic Positive Religious Coping (IPRC) subscale created by Abu-Raiya et al. (2008). The IPRC consists of seven items (e.g., "When I face problems in life, I seek God's love and attention.") All items are rated on a 4-point Likert-type scale (1 = I don't do this at all) to 4 (I often do this). do this.) Scores on this scale are calculated with higher scores reflecting more positive religious coping. For this scale, the Cronbach coefficient (α) is 0.85 (Abu-Raiya et al., 2019).

Depressive symptoms

The measuring instrument used to reveal the Center for Epidemiological Studies Depression Scale (CES-D-10), which consists of ten items (Andresen et al., 1994), using a 4-point Likert type (1 = Rarely/never) to 4 (all the time). For example, "I feel like I can't get rid of my sadness even with help from my family or friends"). Items are summed with higher scores indicating higher depressive symptoms. For this scale, the Cronbach coefficient (α) is 0.81 (Abu-Raiya et al., 2019).

Data analysis

The researcher first conducted descriptive statistical analysis in order to explain the demographic characteristics of the research respondents. Next, perform an inferential analysis that is preceded by testing the correlation between the observed variables using the Spearman-Rho correlation method and the One-Way Anova test to see differences in stress and symptoms of depression based on the duration of quarantine. Then proceed with analyzing the hypothetical model using the path analysis method and hierarchical regression analysis with the help of Jamovi software version 1.8.1.

Result

The correlations between study variables are presented in Table 1. Significant positive correlations between quarantine duration and stress ($r = .518$, $p < .001$), and depressive symptoms ($r = .483$, $p < .001$). Students who spend more time in quarantine will certainly bring up stress and symptoms of depression. However, the duration of quarantine ($r = -.417$, $p = .007$), stress ($r = -0.189$, $p < .001$), and depressive symptoms ($r = -.172$, $p = .001$), were negatively correlated with positive religious coping.

Table 1. Descriptive statistics and correlations between observed variables

Variable	M	SD	1	2	3	4
1. Quarantine duration	3.69	1.27	-			
2. Perceived stress	38.4	7.85	.518***	-		
3. Positive religious coping	19.6	6.34	-.417**	-.189***	-	
4. Depressive symptoms	34.5	5.44	.483***	.873***	.172**	-

Note. *p < .05, **p < .01, ***p < ,001.

Differences in levels of stress and depression were tested using the one-way ANOVA test. The results showed that students who spent longer in quarantine had stress scores ($M_{not\ quarantine}$ = 30.4; $M_{1\ week}$ = 33.4; $M_{1\text{-}2\ week}$ = 36.9; $M_{2\text{-}4\ week}$ = 38.3; $M_{4\ >\ week}$ = 42.7) and depressive symptoms ($M_{not\ quarantine}$ = 28.2; $M_{1\ week}$ = 30.5; $M_{1\text{-}2\ week}$ = 33.6; $M_{2\text{-}4\ week}$ = 35.1; $M_{4\ >\ week}$ = 37.0) more higher than students who spend less time in quarantine, with a significance value in the perceived stress condition of $F_{(4;95.1)}$ = 20.9; p < .001, and for symptoms of depression $F_{(4;89.9)}$ = 21.9; p < .001. Furthermore, an indirect effect of path analysis was also identified, which reported that quarantine duration → stress → depressive symptoms obtained significant results (β = .398; p < .001; 95%CI = 1.358 – 2.065). These results provide evidence that the longer students undergo quarantine, the more depressed they feel (stress), which in turn can lead to symptoms of depression. Thus, Hypothesis 2 is supported.

Table 2. Hierarchical regression analysis in predicting depressive symptoms from stress and positive religious coping

Variable	Depressive symptoms					
	Step 1		Step 2		Step 3	
	β	SE	B	SE	B	SE
Perceived stress	.873***	.018	.871***	-.018	.880***	.065
Positive religious coping			-.007	.023	-.004*	.120
perceived stress *Positive religious coping					-.061*	.003
Total R^2	.762		.762		.765	

Note. *p < .05, **p < .01, ***p < .001.

Furthermore, to examine the moderating effect of positive religious coping on the effect of stress on depressive symptoms, a hierarchical regression procedure was performed (Wang et al., 2016). In the hierarchical regression model, the order of data entry is as follows. In step 1, stress (independent variable) is entered into the regression equation, in order to answer the first hypothesis in this study. In step 2, positive religious coping (moderator variable) is entered into the regression equation. In step 3, the interaction of stress and positive self-religious coping was added, in order to answer the fourth hypothesis. As Table 2 shows, the main effect between stress significantly predicts depressive symptoms (β = .873; p < .001), so hypothesis 1 is supported. However, positive religious coping did not significantly predict depressive symptoms (β = -.007; p = .792). In addition, as expected, there was a significant interaction between stress and positive religious coping (β = -.061; p = .029). These findings indicate that positive religious coping moderates the effect of stress on depressive symptoms. Thus, Hypothesis 4 is supported.

To illustrate the interaction of stress and positive religious coping in explaining depressive symptoms, we constructed regression plots of depressive and stress symptoms at high and low levels of positive religious coping (see Fig. 2). We used a simple slope for regression using high (1SD above average) and low (1SD below average) scores for positive religious coping. As Figure 2 shows, among students with high levels of positive religious coping, stress was negatively associated with depressive symptoms. Although students experience stress due to quarantine, positive religious coping (for example, praying for a long time, dhikr, doing recitations) will certainly suppress and inhibit the emergence of symptoms of depression. In contrast, at low levels of positive religious coping, stress was positively associated with stress and depressive symptoms.

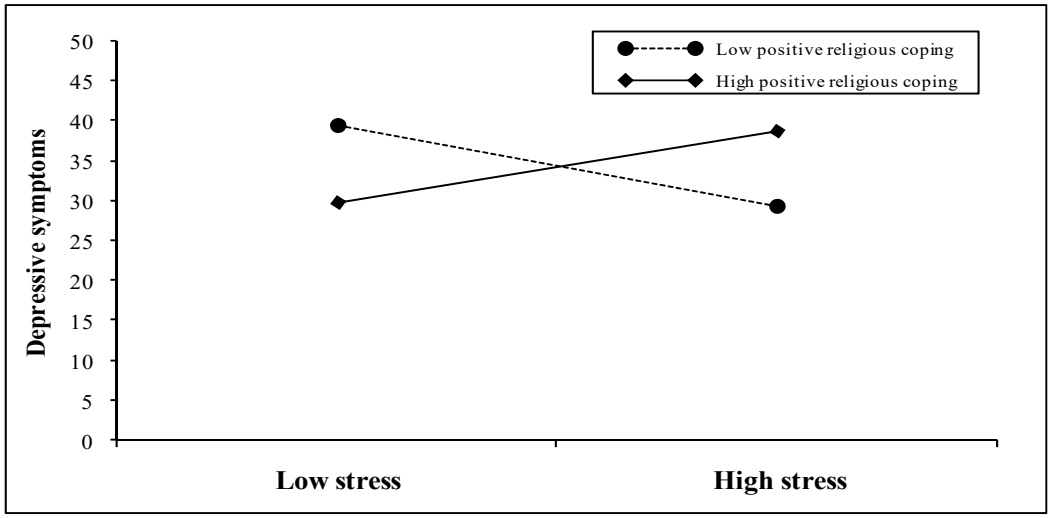

Fig. 2 Interaction between stress and positive religious coping on depressive symptoms

Discussion

The results of the first hypothesis report that stress has an effect on depressive symptoms. In line with previous findings, stress has been the main predictor of depressive symptoms among college students, especially in stressful events, such as COVID-19 (Mahamid & Bdier, 2021; Bakir, Vural, & Demir, 2021). We also found that the stress felt by students was obtained from the relatively long duration of quarantine, which in turn would lead to other mental problems, such as depression, which certainly supports the second hypothesis of this study. Our findings are in line with previous studies which reported that a long duration of quarantine will lead to psychological problems, such as stress and in turn trigger depression among college students (Nugraha et al., 2021). In addition, we also found that there is an association between positive religious coping, stress, and depressive symptoms, which is consistent with previous research (Mahamid & Bdier, 2021; Bakir, Vural, & Demir, 2021; Areba, et al., 2018; Ahles, 2018). et al., 2016; Gardner, et al., 2014; Lee, et al., 2014; Feder, et al., 2013).
Furthermore, we also found that positive religious coping acted as a moderator on the effect of stress felt during quarantine on depressive symptoms. These results have supported the research hypothesis and are in line with the findings of previous research which reported that positive religious coping can act as a mediator on the effect of perceived stress and depressive symptoms (Fernandez & Loukas, 2013). Individuals with high positive religious coping certainly experience less stress (Pargament, et al., 1998). This is because individuals tend to think positively about stressful events, and help prevent depressive symptoms from appearing (Abu-Raiya, et al., 2020). In addition, study 1 in this study theoretically has provided clear information about the role of positive religious coping in relation to stress and depressive symptoms. However, to see the practical role of positive religious coping, study 2 using experimental methods in this study was conducted to see the effectiveness of positive religious coping in reducing stress and symptoms of depression among college students.

Study 2

Design and samples

This study is a quasi-experimental design with nonrandomized pretest posttest control group design (Table 3). The sample in this study was obtained using a purposive sampling technique, with the following criteria: 1) students infected with the COVID-19 virus, 2) currently undergoing quarantine for 14 days, 3) having stress and depression scores in the high or medium category (screening results). pre-test), 4) Muslim, and 5) willing to participate in the training provided voluntarily. A total of 60 master student respondents were divided into 30 experimental groups (21 males and 9 females; M_{age} = 22.900 years) and 30 control groups (25 males and 5 females; M_{age} = 22.800 years)..

Table 3. Research experimental design

	Group	*Pretest*	Intervention	*Posttest*	*Follow-up*
Non Random	Experiment	O1	x	O2	O3
	Control	O1	x	O2	O3

Note. O1 = Measurement before intervention (pretest), O2 = Measurement after intervention (posttest), O3 = Measurement during follow-up.

The grouping of respondents was carried out using a nonrandom technique, but based on the convenience of the researcher, so as to obtain an adequate number of respondents to represent certain characteristic categories. The division of groups is done by considering the willingness of respondents who have been screened based on the results of the pretest and are willing to take part in the training. Respondents who are willing to attend the training are divided into the experimental group, while respondents who cannot attend the training are included in the control group.

Research intervention

The religious coping training used in the study was positive religious coping, which was adjusted to the religion of the research respondents. For this study, it is more specialized in Islam. Aflakseir and Coleman (2010) suggest that positive religious coping in the context of Islam is carried out with materials that are in accordance with Islamic teachings. Emphasis on the context of the Islamic religion is carried out to build faith and apply religious activities as a method of dealing with problems that make individuals feel depressed in their daily lives. Positive religious coping training is provided in several forms, namely: 1). Finding the meaning of goodness from Allah SWT, 2). Allah SWT has control outside of individual power, 3). Dhikr to remember Allah SWT, and 4). Build confidence will always get help from Allah SWT.

Materials

This study uses several materials to support the implementation of this Islamic psychotherapy intervention, such as, Microsoft Office Power Point 2007, Video Player, speakers, intervention outlines, material handouts, research instruments, evaluation sheets, and informed consent given to all research respondents before participating in the activity. this research.

Procedures

Positive religious coping training in this study consisted of five stages, namely: preparation stage, pretest, intervention (training implementation), posttest, and follow-up.

1. Preparation stage

Researchers at this stage conducted a needs analysis through interviews with students who were stressed and depressed as a result of undergoing quarantine. Next, do the preparation of the module and to test the training module. This positive religious coping module is modified from the training module developed by Octarina and Afiatin (2013). After that, prepare training tools and materials, select and provide briefing to facilitators and observers.

Prior to this training, respondents were given an explanation of the research objectives, procedures, data confidentiality, and were also informed that this research was voluntary. Detailed information related to this research has been explained to all participants on the first page, followed by filling out the informed consent via the G-Form link as a sign that they gave their consent to participate in the study, by selecting the words "Yes" or "No". All respondents will only be asked to fill in their initials. However, respondents will be asked to provide their phone number or email for future purposes. After filling out the informed consent, participants were asked to report some additional information about their demographic data. Next, they will be directed to the next page and will fill out a stress and depressive symptom scale.

2. Pretest stage

This stage is carried out by researchers in order to determine the initial state of the respondent. Initial measurements were made using a scale of perceived stress and depressive symptoms. The results of this initial measurement will also be used to screen respondents who will be involved in this training.

3. Intervention stage

This stage was carried out in four sessions, taking about 120 minutes for each meeting (Table 4). This training is carried out online every week, which is given in two meetings so that this research is carried out within two weeks.

Table 4. Positive religious coping training activities

Session	**Activity**
Session 1	Training orientation and explanation, knowing participants' expectations, providing training materials, and providing learning through religious films kun fayakun
Session 2	Explanation of dhikr 1 and practice of dhikr together
Session 3	Explanation of dhikr 2, practice of dhikr together and psychoeducation related to the meaning of the presence of God's (Allah SWT) help
Session 4	Overall review of training materials, termination, and evaluation of training

4. Posttest stage

This stage is the second measurement after providing training to respondents. At this stage, the researchers again provided a scale of perceived stress and symptoms of depression, in order to see the effect of positive religious coping training in reducing perceived stress and symptoms of depression for students undergoing quarantine..

5. Follow-up stage

This stage is a follow-up measurement given to the respondents with a gap of two weeks after the training is carried out. Researchers at this stage will redistribute the scale of perceived stress and symptoms of depression, in order to determine the extent of the effect of the training provided quantifiably. In addition, at this stage an interview will also be conducted which aims to determine the extent to which this training is beneficial for students undergoing quarantine, and to what extent these students are able to apply it in their daily lives.

Instrument

Perceived stress

The measuring instrument used to reveal perceived stress was tested with the perceived stress scale (PSS), which was developed by Cohen et al. (1983), and consists of ten items, which measure the extent to which situations in a person's life are rated as stressful. The items are designed to find out how unpredictable, uncontrollable, and overloaded respondents find their lives. Items on the PSS scale ask about your feelings and thoughts over the past month (eg, "In the past month, how often have you felt unable to control the important things in your life?"). In each case, respondents were asked how often they felt a certain way. Each item is rated on a 5-Point Likert scale from 1 (Never) to 5 (Never), indicating the extent to which they support a particular belief. Cronbach value (α = 0.80) indicates a high level of reliability for the total scale (Mahamid & Bdier, 2021).

Depressive symptom

The measuring instrument used to reveal the Center for Epidemiological Studies Depression Scale (CES-D-10), which consists of ten items (Andresen et al., 1994), using a 4-point Likert type (1 = Rarely/never) to 4 (all the time). For example, "I feel like I can't get rid of my sadness even with help from my family or friends"). Items are summed with higher scores indicating higher depressive symptoms. For this scale, the Cronbach coefficient (α) is 0.81 (Abu-Raiya et al., 2019).

Data analysis

The data analysis used in this research is quantitative analysis and qualitative analysis. For quantitative analysis, the researcher conducted descriptive statistical analysis first by looking at the mean, standard deviation, and percentage categorization of the total score obtained by the research subjects. Next, perform an inferential analysis using the repeated measure ANOVA test, which is used to test the research hypothesis, namely to see the effectiveness of positive religious coping training given to students who experience stress and depression due to undergoing quarantine, with criteria p < .05 then the hypothesis is accepted. Calculation of hypothesis testing using Jamovi software version 1.8.1.

Result

For Positive religious coping training was significant (H3a accepted) on reducing stress in students undergoing quarantine due to the COVID-19 pandemic ($F_{(2;58)}$ = 28.1; p < .05; η^2_p = .492. Respondents involved in the experimental group showed differences in stress levels with a significant decrease at the time of pretest (M = 18.600; SD = 5.721) and posttest (M = 27.933; SD = 10.082) following positive religious coping training ($t_{(29)}$ = -5.16; p < .05). In addition, there were also differences in stress levels with a significant decrease in pretest and follow-up (M = 29.100; SD = 10.768) positive religious coping training ($t_{(29)}$ = -5.55; p < .05). However, there was no significant difference in stress levels at posttest and follow-up ($t_{(29)}$ = -2.43; p = .054). These results indicate that the effect of positive religious coping training is still consistent and persists even though it has been carried out from the previous two weeks. Unlike the case with respondents who were not involved in training (control group), which showed that there was no significant difference in pretest (M = 16.933; SD = 4.226), posttest (M = 17.967; SD = 5.580), and follow-up (M = 17.867; SD = 6.090), with a value of $F_{(2;58)}$ = .627; p = .538; η^2_p = .021.

Stress ***Depression***

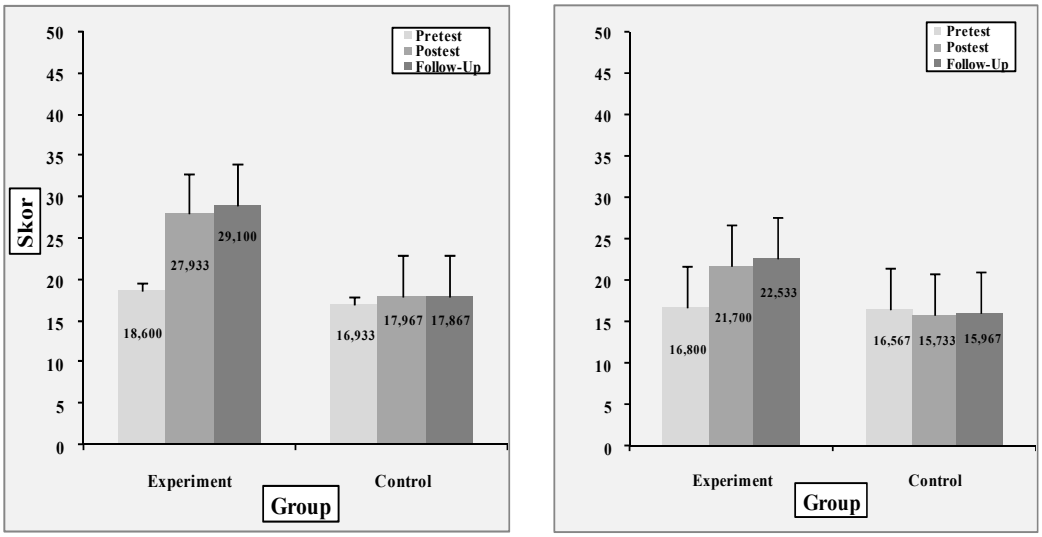

Fig. 3 *Graph of differences in stress and depression conditions of students undergoing quarantine for each group*

Furthermore, positive religious coping training was also significant (H3b accepted) in reducing depression in students undergoing quarantine ($F_{(2;58)}$ = 14.9; p < .05; η^2_p = .340). Respondents involved in the experimental group showed different levels of depression with a significant decrease at the time of pretest (M = 16.800; SD = 6.354) and posttest (M = 21.700; SD = 8.065) following positive religious coping training ($t_{(29)}$ = -3.51; p < .05).

In addition, there were also differences in the level of depression with a significant decrease in pretest and follow-up (M = 22.533; SD = 7.651) in positive religious coping training ($t_{(29)}$ = -4.36; p < .05). However, there was no significant difference in the level of depression at posttest and follow-up ($t_{(29)}$ = -1.98; p = .135). These results indicate that the effect of positive religious coping training is still consistent and persists even though it has been carried out from the previous two weeks. Unlike the case with respondents who were not involved in training (control group), which showed that there was no significant difference in pretest (M = 16.567; SD = 6.118), posttest (M = 15.733; SD = 6.102), and follow-up (M = 15.967; SD = 5.436, with a value of $F_{(2;58)}$ = .177; p = .838; η^2_p = .006. The differences in the stress and depression scores of students undergoing quarantine for each group can be seen in the graph shown in Figure 3.

matting author names and author affiliations

Discussion

Our findings in Study 2 show that positive religious coping is effective in reducing stress and symptoms of depression among master students undergoing quarantine due to COVID-19 infection. Positive religious coping interventions will stimulate respondents in growing confidence in themselves, as an effort to deal with crises and difficult situations. For example, it encourages accepting crises and painful events as part of God's wise plan and viewing crises as a test from God. On the other hand, positive religious coping interventions will encourage respondents not to engage in self-defeating activities and always surrender to God's grace (Abu-Raiya & Jamal, 2019). In addition, positive religious coping interventions are a medium of communication to God (Veronese, et al., 2018), for individuals who are experiencing difficulties. This relationship to God can reduce the need for depressed individuals to withdraw and behave negatively, as well as avoid social support for individuals who experience symptoms of depression (Horton & Loukas, 2013).

Then, individuals who use positive religious coping strategies such as good religious reassessment, collaborative religious coping, and seeking spiritual support, usually experience less stress and have higher self-esteem (Pargament, et al., 1998). Students who tend to use positive religious coping will feel protected from experiencing high levels of depressive symptoms when facing stressful events (Fernandez & Loukas, 2013). The application of positive religious coping interventions will lead individuals who face stressful events to begin to feel strength in their relationship with God, which can lead them to think positively about stressful events, and can help them deal with the adverse effects of depressive symptoms (Abu-Raiya, et al., 2020). Depressed individuals are more likely to withdraw socially, show excessive reassurance, and seek and express a need for emotional support (Fernandez & Loukas, 2013). By strengthening the relationship with God, of course, people who are stressed and depressed will give rise to a sense of support and guidance to face life's challenges, especially in stressful situations.

General Discussion

This research uses two studies, namely a study with a cross-sectional design and an experiment. In study 1, 80.4% of undergraduate students (267 female; M_{age} = 20.2 years), the majority of whom came from private universities (65.4%). The results obtained in Study 1 show that positive religious coping has an effect on stress and depressive symptoms by students who are undergoing quarantine. Then, in Study 2. 60 respondents were master's students with an average age of 22 years. In this study, the results obtained also provide evidence that positive religious coping is effective in reducing stress and symptoms of depression for students undergoing a home quarantine program due to exposure to COVID-19. In summary, our research has provided evidence and expanded the previous literature that positive religious coping is very effective in dealing with psychological problems, especially stress and depressive symptoms. This is confirmed by our study which shows that both the direct effect with the experimental method, as well as the interaction effect with the cross-sectional positive religious coping method significantly in explaining stress and symptoms of depression among students. In particular, students who spend a long time in quarantine, even though they experience feelings of depression, will not show symptoms of depression due to the role of positive religious coping. On the other hand, students

who spend a long time in quarantine, of course, create feelings of depression, and in turn trigger symptoms of depression due to the lack or absence of the role of positive religious coping.

Implications

This study certainly greatly contributes to the advancement of theory and practice. In the theoretical aspect, this study provides information that there is a relationship between the duration of quarantine, stress, positive religious coping, and symptoms of depression among students who are in quarantine due to exposure to COVID-19. Then, positive religious coping was also found to be a moderating variable in explaining the effect of stress and depressive symptoms. In addition, practically it was also found that positive religious coping was effective in reducing stress and symptoms of depression for students. So that the findings of our study can provide a strong basis for the government to implement policies in the form of Islamic psychological intervention as an effort to prevent mental health problems among students who are undergoing quarantine at home due to COVID-19 infection.

Limitation

This study has several limitations, such as self-report measures being susceptible to bias in the cross-sectional study design. Therefore, researchers must be very careful in making causal conclusions. Thus, future studies are expected to use a longitudinal design. Then, the existence of special criteria and the minimal number of samples certainly provides a limit for examining greater diversity among individuals.

Conclusion

This study supports previous findings, namely positive religious coping is effective in reducing stress and symptoms of depression in students due to undergoing quarantine. Considering that positive religious coping was found to be significantly related to mental health problems of students undergoing quarantine, thus providing a basis for implementing Islamic psychotherapy interventions to deal with mental health problems. Therefore, future studies in terms of psychological services should pay attention to religious aspects with a longitudinal design to examine the reduction of psychological problems.

Ethical Standards

The procedure in this study was in accordance with the ethical standards of the national committee, in this case the Indonesian Psychological Association.

Declaration of Conflicting Interests

The authors declare that there is no conflict of interest.

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