

Deploying an Optimism Model On The End of The Covid-19 Pandemic

Faturochman^{*1}, Lisa Sunaryo Putri¹, Wenty Marina Minza¹

¹Faculty of Psychology, Universitas Gadjah Mada

Submission 6 April 2022 Accepted 6 August 2022 Published 23 December 2022

Abstract. The COVID-19 pandemic began as a health problem which has also mutated into an economic, social, and psychological problem. Millions of victims required intensive care and many died. Furthermore, the pandemic has almost paralyzed the economy, impacted social life, and increased the number of people experiencing various psychological problems. Various efforts to overcome those problems have been implemented. However, optimism, a significant psychological dimension of coping, is arguably required to ensure that these efforts do not diminish. This study develops a contextual model of optimism by identifying collective coping and closeness to God as variables that have a direct impact on optimism. Meanwhile, individual preventive efforts are located as an antecedent to collective coping, but do not directly impact optimism. Data for the study were collected through online surveys during the pandemic with 544 respondents. The results of the data analyses showed that they fit the theoretical model developed. Individual preventive efforts influences optimism through collective coping. Furthermore, collective coping and closeness to God have direct effects on the emergence of optimism. This optimism model indicates the importance of collective efforts as a part of the drive to end the pandemic. Individuals also need spiritual strength to remain optimistic. Both must be present, in parallel with individual preventive efforts, as is often suggested by policymakers.

Keywords: collective coping; corona virus prevention; optimism; religiosity

By the end of 2021, there were 281,808,270 cases of COVID-19 worldwide and 4,262,351 of them had occurred in Indonesia. The COVID-19 pandemic affected individuals, communities, countries, and the entire world. What started as a health problem developed and impacted other aspects of life such as the economy (Gupta et al., 2022; Olivia et al., 2020; Suryahadi et al., 2020); social (Gandasari & Dwidienawati, 2020; Gupta et al., 2022), and psychological aspects (Tejedor et al., 2021; Xiong et al., 2020). The highly contagious nature of the virus has, in a short time, COVID-19 a global problem. Humans are exposed to conditions that have the potential to reduce their quality of life (Shamblaw et al., 2021), even causing loss of life. The Indonesian government issued several policies in response to these conditions. These policies include the implementation of social restrictions on community activities and the establishment of the Task Force for the Acceleration of Handling of COVID-19 (Djalante et al., 2020; Olivia et al., 2020). These prevention and handling policies continue to be evaluated to date because the COVID-19 pandemic has not ended yet.

*Address for correspondence: faturpsi@ugm.ac.id

The community's response came in the form of action, both collective and individual. Community organizations undertook fundraising and various movements to help people in need. Health professionals and researchers also provided consultations to answer questions and assist in solving problems. Assistance in various forms targeted the maintenance of physical and mental health (Hu et al., 2020; Lau et al., 2020; Mohsen et al., 2021). The collective support shown by the social environment plays an important role in helping individuals in their struggle to survive until the pandemic ends. This condition then raises positive expectations which are cognitively manifested in the form of beliefs that there is still hope, optimism and a belief in oneself (Gordeeva et al., 2020).

However, various efforts to prevent virus transmission and crisis management from the health side have faced many obstacles. Limited experience in handling a pandemic, the lack of a vaccine at the beginning of the pandemic, the highly contagious nature of the virus, and the availability of facilities and medical personnel, are challenges themselves. New variants of the virus continue to develop, and the end of the pandemic is difficult to predict. As a result, the public is experiencing high anxiety, even when the number of cases goes down for a while, they rise again. This situation prompts the question: what is the state of public optimism during the pandemic?

Optimism is generally defined as the expectation of a good situation or a positive outcome (Scheier & Carver, 1985). Optimistic people believe that there will be better conditions in the future because of pure luck, one's efforts, the actions of other parties, or supportive situations (Alarcon et al., 2013). Optimism plays a role in moving and dynamizing life to achieve prosperity (Ho et al., 2010).

There are two forms of optimism. The first is dispositional optimism (Scheier et al., 2001), which is defined as a general belief of positive outcomes in various aspects of life. This optimism leads individuals to hope that good things will replace the negative things they are experiencing. Optimism is also related to an individual's belief that what they want will very likely be attained (Perez et al., 2014). In facing problems, optimistic individuals will accept and face reality rather than run away from the situation. As a disposition, this type of optimism is relatively stable and formed over a relatively long period.

The second variant is learned optimism (Seligman, 2006), which is a concept whereby a person believes that they can turn something negative into a positive outcome. This concept is often contrasted with learned helplessness as the tendency for people to accept the negative things that happen to them, without enough effort to address the problem. This type of optimism is more dynamic in the sense that it is influenced by situations that may change and impel the person concerned to make changes. From this perspective, optimism is a skill that can be learned. It is not just about saying something positive but using the ability to not think negatively in difficult situations in life (Seligman, 2006). For example, in the COVID-19 pandemic situation, individuals learn while going through a series of events that can foster optimism.

During the pandemic, both forms of optimism are needed. When conditions are particularly difficult, such as at the beginning and peak of the pandemic, people with dispositional optimism will be psychologically healthier. After seeing and learning about the development of the pandemic, learned optimism will be more active in finding ways to deal with the pandemic. With such beliefs, resilience

will be formed (Vos, 2020). However, in the discussion of optimism, there is also the term optimistic bias or unrealistic optimism (Fragkaki et al., 2021; Gassen et al., 2021). This optimism refers to the distorted perception of an individual toward risk. Individuals believe that they are at low risk, even though, objectively, the risk is high. In the context of a pandemic, this is very dangerous because it can discourage individuals to take precautions, which means they will eventually endanger themselves and others (Dolinski et al., 2020; Gassen et al., 2021). This form of optimism is suspected to have appeared in Indonesia at the beginning of the pandemic, expressed in practical terms, by not closing international borders when other countries had already done so (Djalante et al., 2020). When COVID-19 spread rapidly, some community groups also held the belief that they would not be infected by the virus. These incidences can be thought of as a form of unrealistic optimism.

The emergence of high anxiety during the pandemic was predicted to lower optimism. The seriousness of dealing with the pandemic and the global support system, however, can be reasons for optimism (McCain & Bishen, 2022). Unfortunately, so far, almost no research has been found that explains the factors that influence optimism during a pandemic. Therefore, the second question of this research is: what are the variables that affect optimism during the pandemic?

The important role of optimism in difficult times such as a pandemic has been studied and researched by several parties. The findings, among others, show that optimism is negatively correlated with feelings of frustration in pandemic situations. Optimism also has a positive correlation with resilience (Fernández & Meirinhos, 2021) and has a positive correlation with individual resilience in dealing with the COVID-19 pandemic (Maheshwari & Jutta, 2020). Yet, these correlational studies have not located the exact position of optimism, as an influence variable or an affected variable. Most studies place optimism as an influence variable. The results of the studies in question, among others, mention that optimism affects resilience and efficacy (Sabouripour et al., 2021), generalized self-efficacy (Fournier et al., 1999), and physical and mental well-being (Conversano et al., 2010).

In contrast to the role of optimism as an influencing factor that has been studied multiple times, the factors that influence optimism remain limited. Conceptually, learned optimism suggests that optimism is influenced by other factors so that it can be shaped or developed. Research on the influencing factors of optimism was often conducted in normal situations. For example, research showing that optimism is influenced by socioeconomic status and achievement (Ek et al., 2004), where individuals from higher socioeconomic and achievement groups tend to be more optimistic. Other research show how optimism in the young age group is influenced by inner psychological factors and influence of their parents (Perez et al., 2014), and students with promotive self regulation are often more optimistic (C. H. Li & Wu, 2011). The limitations of previous research in exploring and understanding the influencing factors of optimism, especially during the pandemic, have become a challenge in building a model of optimism. This challenge is to addressed in the third question of this research, namely, how does the optimism model fit the pandemic situation?

From the three questions of the research above, the objectives of this study are to identify optimism amid a severe pandemic situation, and its explanatory factors, and to build a salient optimism model. Achieving these objectives will result in an adequate understanding of optimism that

can be used to maintain psychological conditions and develop follow-up actions when the pandemic ends. This expectation follows the belief of previous researchers that optimism improves various psychological aspects (Alarcon et al., 2013; Andersson, 1996; Conversano et al., 2010; Fournier et al., 1999).

To date, the virus that causes COVID-19 continues to mutate to produce new variants and spread rapidly. To control the spread, several policies have been put in place that emphasizes the importance of prevention. Although research shows that individual responses to COVID-19 vary from country to country, government policies on prevention are relatively similar (Hu et al., 2020). These policies aim to encourage individual awareness of possible negative occurrences if infected with COVID-19. These various efforts made by the government require the support of communities and individuals.

In contrast to dispositional optimism which is general and relatively stable, learned optimism is more contextual and dynamic following the situation or context of events experienced by individuals. The COVID-19 pandemic as a major disaster is also suitable to be dealt with using learned optimism as a psychological provision to control the situation (Forgeard & Seligman, 2012). Thus, an explanation of the influencing factors and models of optimism is more attainable by using learned optimism as the starting point of the study.

To understand the factors that influence optimism, we start by exploring the character of the construct, in this case, the cognitive construct. Cognitively, the main influence factors of optimism are the focus of attention (Isaacowitz, 2005) and locus of control (Hecht, 2013). Optimistic individuals will focus on potential, not weaknesses. Those who are optimistic also believe that they will be able to control and address the problems faced, instead of surrendering to the situation. Based on this line of thinking, the exploration of the influence of optimism can be sought from a cognitive understanding on the prevention of virus transmission. It is a common understanding that prevention of Coronavirus infection can be achieved through vaccination and efforts to avoid transmission, known as the five Ms (Minister of Health of the Republic of Indonesia, 2020). Both needs to be carried out together, except in a condition where a vaccine has not yet been found and vaccination cannot be carried out.

Prevention of COVID-19 transmission is carried out individually, collectively, and globally. At the individual level, it is carried out by maintaining hygiene (washing hands), wearing a mask, and reducing mobility. Social prevention is carried out by maintaining distance and staying away from crowds. Both must be carried out simultaneously because the rapidly spreading virus is impossible to deal with individually. If individuals do not take precautions, they will be infected easily and transmit the infection to others. In other words, collective prevention is needed, which is often called collective coping (Kuo, 2013; Lorient, 2015). The same mechanism applies at both the national and global levels. Global-level cooperation is needed for broader prevention and treatment such as the development of vaccines and drugs and methods and ways of treating victims. When a vaccine is found and cooperation between countries to deal with the pandemic is adequate, optimism that the pandemic can be controlled also increases (McCain & Bishen, 2022).

Collective coping, which in some literature is referred to as communal coping, is a form of effort from community members to manage unpleasant conditions (Lyons et al., 1998). Several factors

encourage the emergence of collective coping. First, some situations include events or pressures that simultaneously affect the entire community or network of people such as when a disaster occurs, including a pandemic. A virus that initially affects individuals becomes a collective problem due to its contagious nature. Individual coping can affect the community and vice versa with collective coping, so there can be no priority for just one of them. Second, the cultural context affects collective coping. Indonesia's culture is somewhat collectivist; so many processes in life and how to solve problems are carried out with a collective approach. Third, collective coping is also influenced by the level of closeness or the relationship between individuals. The closer the individual's relationship with other individuals, the greater the likelihood of participating in collective coping. This opinion is corroborated by several recent studies conducted against the background of the COVID-19 pandemic. Liekefett and Becker (2021) found that individuals who are bound in the same preventive behavior (keeping their distance) at least base it on two factors, namely, to protect themselves or protect vulnerable groups. Both lead to solidarity-based behavior. Something similar emerged in a study conducted by Fernández and Meirinhos (2021) on adolescent subjects. Adolescents who have family or close people in a vulnerable condition will try hard to take precautions so that they do not become a medium for transmitting the virus.

From the explanation above, it can be seen that preventive efforts made by individuals will develop and form a way of coping which is carried out collectively. This is an important factor in supporting the handling of the COVID-19 pandemic in the community. Collective coping accelerates building positive perceptions amid negative situations (Włodarczyk et al., 2016). In Indonesia, collective coping during this pandemic is also developing and is considered important as a strategy to deal with the pandemic (Minza et al., 2022). Another factor is also seen in the approach taken by the government, namely, emphasizing the importance of cooperation and the solidarity of the entire community (Sultan & Rapi, 2020). The belief that collective coping is the mainstay in overcoming the pandemic is gradually showing results and has generated increased optimism that the COVID-19 pandemic can be overcome and will end.

Related to belief as the main psychological aspect of optimism, optimism can also arise as an effect of religious and spiritual factors. Religious beliefs and life, or other transcendent elements, give individuals the strength to achieve kindness in various aspects of life (Nashori, 2013; Suseno, 2013), including the strength needed to get through difficult times. Strength is manifested in various forms, one of which is manifested in the form of optimism. Spiritual beliefs and faith help individuals find psychological well-being and prevent mental health problems, which leads to the formation of psychological resilience (Arslan & Yıldırım, 2021; Chang et al., 2021; Dutra & Rocha, 2021; Prazeres et al., 2020; Schwaiger et al., 2021; Thomas & Barbato, 2020; Zarrouq et al., 2021). Spiritual aspects can also encourage individuals to develop a positive mindset and be hopeful and optimistic during the COVID-19 pandemic (Abbott & Franks, 2021; Büssing et al., 2021; del Castillo et al., 2021; Roberto et al., 2020).

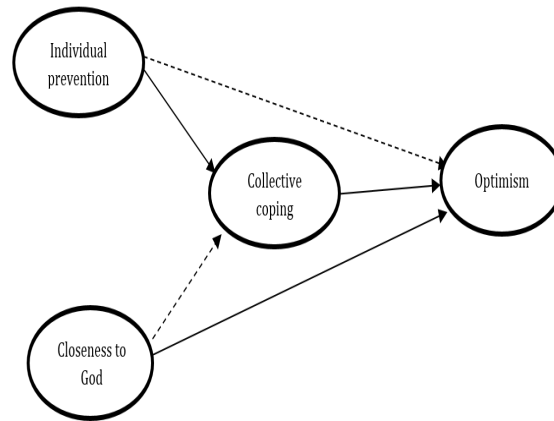
The context of religion and spirituality makes a considerable contribution to determining individual attitudes during the current pandemic. Closeness to God can help individuals get through

various unpleasant experiences in their lives, especially during the COVID-19 pandemic (Thomas & Barbato, 2020). Closeness to God is known to help reduce individual anxiety about the uncertainty of conditions during the pandemic (Rias et al., 2020). However, preventive policies of maintaining distance between individuals may not work effectively either when it comes to changes in worship practices. A study conducted by Widiyanto (2020) found that rejection is very likely to occur and conspiracy theories arise. The policy of social distancing often results in the disruption of worship rituals. Individuals are limited in coming to places of worship together as it is advisable to carry out worship while keeping a distance from others. This policy certainly does not follow the conventions of worship, especially congregational prayers. Individuals who have high spirituality and religiosity may ignore this precautionary advice. Rejection can also be a defensive action as shown by stating “the pandemic arises as a result of the sins committed by humans” (Kranz et al., 2020). To reduce resistance towards preventive policies that may discourage communal religious practices, the participation of religious organizations is needed to provide guidance and support. Religious organizations are expected to provide spiritual support for individuals and issue statements supporting government policies (Roberto et al., 2020). Individuals who understand the situation well will encourage themselves to be closer to their God and find meaning in a pandemic situation (Hamilton et al., 2021). This is important to foster positive thinking and nurture the optimism that the pandemic will end eventually.

Optimism that arises in a pandemic situation is not just a belief that already exists in individuals (Scheier et al., 2001), but is also the result of a series of positive experiences experienced by individuals (Seligman, 2006). The current research focuses on the development of a contextual model of optimism by placing collective efforts and closeness to God as variables that have a direct effect on the optimism that the pandemic will end. Meanwhile, individual preventive efforts remain important as described earlier. Prevention carried out by individuals can escalate into group perceptions and behaviors as the initial foundation for the emergence of collective coping. The social support that is shown collectively and felt by both individuals and groups, in turn, leads to optimistic thoughts that the pandemic can be controlled and end soon. Meanwhile, closeness to God encourages the emergence of an optimistic attitude if the individual or group believes that the ordeal will eventually pass.

From the explanation above, the psychological dynamics in the formation of optimism during a pandemic are depicted in Figure 1. This model of optimism during a pandemic is not only built from theory and previous studies but is also based on perceived field observations. What this means is that a pandemic can end when there is a collective effort to inhibit or end the pandemic. Individual prevention efforts are needed, but these efforts will be hampered when other individuals are doing the opposite. Thus, individual prevention plays a role in supporting collective coping without ruling out the possibility that these prevention efforts have a direct effect on optimism. From another point of view, it is well-known that people always associate disasters, such as the current pandemic, and efforts to end them as something that cannot be separated from the intervention of God. Individuals who have a close relationship with God and seek to ask for God’s help will feel confident that this pandemic will end.

Figure 1
Optimism Model during the Pandemic



Hypothesis

Optimism in the face of a pandemic can be explained directly by collective coping and closeness to God, while the effect of individual preventive behavior on optimism is mediated by collective coping. The direct effect of individual preventive behavior on optimism would be small or insignificant while the effect of closeness to God is not mediated by collective coping. The model will fit the data in the field.

Methods

This research is part of a study on social and psychological conditions during the pandemic and its impact, which is a collaboration between the Faculty of Psychology of Universitas Gadjah Mada and the Università Giustino Fortunato, Italy. The study obtained ethical approval from Universitas Gadjah Mada with approval number 2057/UN1/FPSi.1.3/SD/PT.01.04/2020. This collaboration focuses on developing research instruments and data collecting. The scale used was originally compiled by a research team at the Università Giustino Fortunato, Italy regarding the psychological and social aspects of individuals affected during the COVID-19 pandemic (Minza et al., 2022). The scale was then translated into Bahasa Indonesia by the UGM research team and can then be used with full authority.

This research uses a quantitative approach with questionnaires as the main instrument, some of which use measurement models or scales. Due to the national direct contact restriction policy, at the time of data collection, the questionnaires were distributed online through convenience sampling techniques. Information on the recruitment of respondents was disseminated through social media rolled out by the research team, or from one research colleague to another person or group. The questionnaire was formatted using Google Forms and in the questionnaire, there was an introductory

section about the purpose and objectives of data collection along with securing informed consent from the respondents. The data collection process was carried out over two months in the initial period of the COVID-19 response.

Four variables are used in this study following the theoretical model developed (Figure 1), namely, optimism, collective coping, closeness to God, and individual prevention efforts. The four variables are treated as latent variables with two or more constituting observed variables.

Optimism is the belief that better conditions will come even though COVID-19 has hit and is causing many problems. The beliefs in question are in the form of solutions, that there will be results from pandemic prevention efforts, and feelings of (no) fear for some time to come. This variable consists of three observed variables, each of which is an item containing a statement followed by five answer choices which range from strongly disagreeing to strongly agreeing with the statement. An example of an optimism item is "I am optimistic that there will be a solution to this problem soon, and conditions will soon return to normal."

Collective coping sums all the joint actions to prevent the transmission of COVID-19. The joint action in question is in the form of responsibility, respecting prevention efforts by other parties, solidarity in taking preventive actions, and agreeing on rules so that there is a guarantee of success. This variable is also a latent variable consisting of four observed variables in the form of items with a format like the optimism variable. One of the collective coping items are "In this critical situation, we should have a sense of shared responsibility and unite."

As a latent variable, closeness to God is composed of two observed variables in the form of items similar to the format of the optimism and collective coping variables. One of the items is: "These past few days I feel closer to God."

Individual preventive behavior is an effort to reduce the transmission of the COVID-19 virus. These efforts are actions recommended by the authorities and implemented by individuals. Measurement of individual preventive behavior is carried out by maintaining distance, avoiding crowds, limiting mobility and wearing masks. Examples of items on this scale are: "I will never leave the house without a mask."

All research variables that are latent variables, each of which is composed of several observed variables, are tested with integrated factor analysis (Appendix) and as latent variables, factor analysis is again shown in model testing (hypothesis). The test results show that almost all latent variables are composed of observed variables whose role is quite large and significant (see [Appendix](#)). The only observed variable whose role is not too large is the constituent of the latent variable of optimism with a non-standardized estimation weight of .389 (standardized estimate of .157) but its role is still very significant (.002). With these results, it can be concluded that the measurement of latent variables used in this study is an adequate construct. A total of 544 respondents completed the research questionnaire. Most of the respondents were female (63%) and the rest were male (34%). The distribution of age of the respondents consisted of the age groups of 21–40 years (66.4%), 41–64 years (18.8%), 20 years or less (13.8%), and 65 years or more (1%). The location of residence of the majority of respondents was urban (70.4%), rural (22.1%), and had often moved from village to city or vice versa (7.5%). Most respondents

(91.1%) had tertiary education and the rest had secondary school education (8.9%).

At the time of the survey, 71% of respondents lived in areas at risk of contracting COVID-19 while 29% lived in areas relatively safe from transmission. All respondents had received information about COVID-19 through various media with a moderate level of understanding about COVID-19. All respondents considered that COVID-19 is a source of health, social and economic problems. For this reason, prevention efforts were carried out by all respondents in several ways, including maintaining distance, avoiding crowds, and wearing masks, but the level of prevention varies.

Results

Description and Correlation Between Variables

As mentioned earlier, all variables used in this study are latent variables. As latent variables, these variables cannot be described like observed variables. For practical purposes, namely, getting an overview of these variables, in this study they are also displayed in the form of observed variables. On the other hand, the correlation between variables shown is the correlation between latent variables. 1 shows the mean scores of the research variables, standard deviations, and intercorrelations. When using a hypothetical average, average optimism is moderate (11.64 compared to 9) while collective coping (18.09 compared to 12), closeness to God (8.65 compared to 6), and prevention efforts (8.03 compared to 6) are high. This factor shows that amid dangerous conditions there is still optimism, although not at very high levels. High individual and collective efforts are good assets to overcome the pandemic. As part of the community, research respondents have a very close relationship with God which can be used as a strengthening capital to build optimism and efforts to prevent infection and recover from the pandemic.

Table 1
Means and Standard Deviations and Correlations Between Variables

Variables	Mean	Standard deviation	Correlation		
			Optimism	Collective coping	Closeness to God
Optimism	11.639	1.912	1	-	-
Collective coping	18.086	2.254	.733*	1	-
Closeness to God	8.648	1.454	.641*	.301*	1
Individual prevention	8.030	1.823	.648*	.650*	.352*

*: significance <.001

Source: primary data analysis results

Correlations between variables that are classified as moderate to high and significant form a strong foundation for building a model that fits the data. The high correlation between the collective coping variable and optimism is an early indication of the strong effect of one variable on the other, as well as closeness to God and optimism and individual prevention efforts with collective coping.

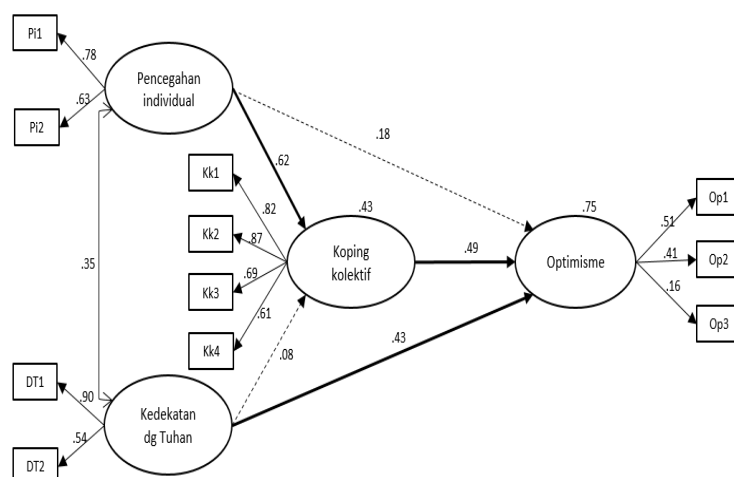
Suitability of Model and Role of Exogenous and Mediator Variables

From the results of the Structural Equation Modeling (SEM) analysis for the optimism model in dealing with COVID-19, an absolute fit index using a GFI of .976 is obtained which is greater than the minimum standard of .9, CMIN/DF of 1.936, below 5 as the maximum required standard, and RMR and RMSEA which are .032 and .042, respectively, below the maximum standard of .05 which indicates the fit between the theoretical model and the data (Byrne, 2016; Schumacker & Lomax, 2004). Likewise, the incremental fit test using AGFI of .959, NFI of .953, and IFI of .977 are all above the minimum standard of .9 which means they also meet the fit criteria (tze Hu & Bentler, 1999).

In more detail, the results of model testing also show the role of exogenous and mediator variables as in Figure 2 and Table 2, which are briefly stated as follows:

1. The direct effect of preventive behavior on optimism was not significant (standardized regression weight = .181; $p > .05$).
2. The direct effect of closeness to God on optimism was significant (standardized regression weight = .432; $p < .001$)
3. The direct effect of preventive behavior on collective coping was significant (standardized regression weight = .622; $p < .001$).
4. The direct effect of closeness to God on collective coping was not significant (standardized regression weight = .082; $p > .05$).
5. The direct effect of collective coping on optimism was significant (standardized regression weight = .485; $p < .001$).

Figure 2
Optimism Model Test Results



From the series of analysis results presented, it can be stated that, first, the validity of the scale is justified through the measurement of latent variables in the development of the model. Second, the theoretical model developed follows field data. Third, individual preventive efforts have a direct effect on optimism in handling COVID-19 but are expressed through collective coping. Fourth, closeness to God has a direct effect on optimism but not through collective coping. In other words, this research hypothesis is proven.

Table 2
Estimated Effects Between Variables

Effects	Estimate	S.E	Standardized estimate	p
Individual prevention on collective coping	.572	.078	.622	<.001
Closeness to God on collective coping	.068	.045	.082	>.05
Individual prevention on optimism	.162	.110	.181	>.05
Collective coping on optimism	.473	.109	.485	<.001

Source: primary data analysis results

In more detail, it can be explained that the optimism in this model is quite large ($R^2=.75$), which means that the exogenous and mediator variables in this study can explain optimism strongly. It also appears that the standardized effects of collective coping and closeness to God are, respectively, .49 and .43. The effects of both variables are significant. On the other hand, the direct effect of individual preventive measures on optimism was not significant (standardized effect of .18, $p >.05$), but the effect on collective coping was significant (standardized effect .62, $p <.001$).

Discussion

This research seeks to contribute to providing an understanding of the factors that influence the development of optimism during the COVID-19 pandemic situation in Indonesia. Optimism that the pandemic will pass and conditions will soon return to normal is influenced by a close relationship with God and collective coping with antecedents of individual preventive behavior to limit the spread and transmission of the Coronavirus. At the individual level, the main preventive behaviors are maintaining distance when in contact with others, avoiding crowds, and wearing a mask when outside. Prevention efforts are complemented by activity regulation (Large-Scale Social Restrictions or Enforcement of Restrictions on Community Activities) and vaccination. The last two factors mentioned in prevention efforts are carried out at the level of government policy implementation. This handling pattern is known to have a significant effect in suppressing the spread of the virus during previous pandemics, for example during the influenza A/H1N1 pandemic (MacDonald et al., 2013; Naing et al., 2012; Uribe et al., 2021). Other behaviors relate to individuals' efforts to access information to find out about the current situation. This increases understanding and encourages individuals to take those precautions recommended by the government (J. Li & Zheng, 2020).

Virus transmission as the root of this pandemic problem is not prevented solely by individuals. Targeted collective efforts are key to successfully preventing the spread of the Coronavirus so that the pandemic may end. Similar elements are also found in research related to policies and situations during COVID-19 in several countries (Biddlestone et al., 2020; Desalegn et al., 2021; Djalante et al., 2020; Hattke & Martin, 2020; Lau et al., 2020; Marmarosh et al., 2020). There are similarities in the conditions experienced, namely, the role of individual awareness in prevention and the cooperation of all parties in disseminating information and supporting the government, so that collective coping is formed to reduce the spread of the virus. In some conditions, collective coping may be different due to cultural influences. Individualistic societies will have different prevention approaches and dynamics from countries with a culture of collectivism (Bavel et al., 2020).

The results showed a direct role of collective coping towards optimism, while the role of individual prevention efforts was mediated by collective coping. These results corroborate communal coping theory which emphasizes the need for social integration, interdependence, the closeness of relationships and the ability to get through stressful life situations (Lyons et al., 1998). The COVID-19 pandemic is an experience in itself in a situation full of uncertainty, encouraging individuals to act collectively and work together. Individuals who have a high sense of responsibility and prioritize safety tend to pay more attention to preventive rules and make an effort to help other individuals through the crisis (Wolf et al., 2020). The effectiveness of the contribution of individual level prevention efforts to collective coping and the model as a whole cannot be separated from the structure of a cohesive society. A society with such a high level of collectivism as the research area also supports the formation of collective coping as in this study.

Currently, we have witnessed better and higher control of the pandemic situation, which may result in the increase of optimism that the pandemic will end soon. This argument is in line with

Leslie-Miller et al. (2021) study which found that well-conceived anticipation of the future of COVID-19 can increase the optimism of individuals and groups. This study found a similar factor which follows the theory of optimism. Optimism is manifested in acceptance, not trying to run away from the situation, trying to find the best way to get through it and learning something from the condition (Scheier et al., 2001). Thus, individual efforts to prevent infection and encourage the emergence of collective coping have a major contribution to directly fostering optimism that the COVID-19 pandemic will end.

The decline in Coronavirus infection cases has proven effective when efforts at the individual, collective and policy implementation levels are aligned. These measures are also believed to be effective in preventing the spread of new Coronavirus variants until herd immunity is achieved. The rational flow in religious communities is strengthened by efforts to become closer to God, believed to be the Helper. Research conducted by Rias et al. (2020) places spirituality as one of the important factors for individuals to be able to remain psychologically healthy in a COVID-19 pandemic situation. The close relationship with God is believed to provide strength to deal with stressful life events and endure social distancing policies (Dutra & Rocha, 2021; Thomas & Barbato, 2020). Spiritual aspects are also known to have a positive influence on individuals, bringing resilience, hope, comfort, calmness and optimism, especially in female respondents (Roberto et al., 2020).

Optimism is needed when there is a gap between reality and expectations (Efklides & Moraitou, 2013). To raise optimism, efforts are needed to meet the expectations or goals people have. Many factors can influence optimism; however, the best results will be obtained if there is a balance between individual abilities and the social support people have. Thus, the optimism model in this research is a combination of rational behavioral approaches and belief-based (spiritual) model. Rational behavior in this model includes individual preventive efforts and collective coping, while the trait model is represented by the characteristics of a religious society which are reflected in behaviors facilitating a sense of closeness to God.

So far, there has not been much explanation about optimism during the pandemic, especially the variables that influence it. The development of a tested optimism model in this study is part of the development of optimism theory. This research has at least three roles in the development of research and the theory of optimism. First, so far, research on optimism remains general (Ek et al., 2004; Hecht, 2013; Isaacowitz, 2005; Perez et al., 2014) or on the other hand, remains focused on specific issues related with physical and mental health problems (Conversano et al., 2010). This research has a unique context, namely, the pandemic period, as well as a common context, experienced by almost all humans with high problem complexity. Research findings demonstrate the importance of dynamic individual, collective and spiritual roles in optimism. These findings are broader than those of previous studies (Fernández & Meirinhos, 2021; Fragkaki et al., 2021). Second, in contrast to previous studies that identified the variables that influence dispositional optimism (Perez et al., 2014), this study explores the situational and contextual influence factors of learned optimism that have not been widely explored. Third, the important role of collectivity and religiosity in optimism, which is reflected in collective coping and closeness to God, enriches the study of optimism which has placed more emphasis on

individual aspects.

Conclusions

Collective coping and closeness to God, which have an important role in the study, have a positive and large effect on optimism. The role of collective coping is supported by individual efforts to prevent the transmission of COVID-19. This simple model reflects the enactment of two approaches, namely, rational and spiritual behavior, which is contextually easy to understand because, in daily practice, there are individual, collective and religious efforts to prevent the virus. In other words, optimism is not solely a dispositional factor that arises from internal psychological processes but is also influenced by external factors as demonstrated by this research. Placing optimism as a disposition in a long and difficult situation like this pandemic will cause its own problems when optimism is low. By knowing the variables that are proven to affect it, efforts to maintain or increase optimism can be made.

The research was conducted at a time when the pandemic was escalating. After that, there was a time when the pandemic experienced at least two peaks with a very large degree of threat and casualties. Almost all survey research conducted at that time used non-random sampling as an unavoidable strategy. Nevertheless, the application of statistics in the analysis was still carried out. At the time this paper was written, the pandemic was already in a different phase, expected to shift into an endemic. This difference between phases changes behaviors, feelings, thoughts, and how to respond. The spread of COVID-19, which is still high but with a relatively low death rate, as when this paper was compiled, is expected to change the dynamics of the variables studied. Such a context, on the one hand, must be recognized as a weakness of the paper, but also a characteristic that can be accepted as a limitation. Many theoretical, methodological, and learning benefits can be absorbed from this study. However, a pandemic like this often places us in unpredictable situations, which poses limitations on the predictable power of this model.

Recommendations

The results of this study can be used as a reference to maintain optimism by paying attention to factors influencing it. Optimism can be maintained through three levels, namely individual, collective and spiritual. At the individual level, preventive behavior must be truly consistent so that it continues to play a role in building collective coping. Collective efforts have proven effective, but collectivity itself needs to be maintained because critical situations often decreases togetherness, thus potentially to reducing optimism. Efforts at the individual and collective levels can maintain optimal levels of optimism when religiosity is also maintained. The close relationship with God in a religious society as in this study can be optimized to develop optimism when facing the COVID-19 pandemic.

Declarations

Acknowledgments

The researcher would like to thank Luca Tateo from the University of Oslo who allowed the researchers to use the questionnaire for this research.

Funding

This research was supported by the Grant Funding of the Faculty of Psychology Universitas Gadjah Mada, number 2354/UN1/FPSi/UP4/PT.02/2020

Author's Contribution

This article was co-authored by three authors. F designed the study starting from formulating research questions and objectives, developing theoretical models, hypotheses, data analysis and interpretation to conclusions. LSP wrote part of the introduction and discussion of the results of the study. WMM is responsible for collecting data and reviewing the draft.

Conflict of Interest

The authors declare that there is no conflict of interest in this research.

Orcid ID

Faturochman  <https://orcid.org/0000-0003-2663-5832>

Lisa Sunaryo Putri  <https://orcid.org/0000-0001-9957-7149>

Wenty Marina Minza  <https://orcid.org/0000-0002-3805-2717>

References

- Abbott, D. M., & Franks, A. S. (2021). Coping with COVID-19: An examination of the role of non-religiousness/non spirituality. *Journal of Religion and Health, 60*(4), 2395–2410. <https://doi.org/10.1007/s10943-021-01284-9>
- Alarcon, G. M., Bowling, N. A., & Khazon, S. (2013). Great expectations: A meta-analytic examination of optimism and hope. *Personality and Individual Differences, 54*(7), 821–827. <https://doi.org/10.1016/j.paid.2012.12.004>
- Andersson, G. (1996). The benefits of optimism: A meta-analytic review of the life orientation test. *Personality and Individual Differences, 21*(5), 719–725. [https://doi.org/10.1016/0191-8869\(96\)00118-3](https://doi.org/10.1016/0191-8869(96)00118-3)
- Arslan, G., & Yildirim, M. (2021). Meaning-based coping and spirituality during the COVID-19 pandemic: Mediating effects on subjective well-being. *Frontiers in Psychology, 12*. <https://doi.org/10.3389/fpsyg.2021.646572>

- Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., ... Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4(5), 460–471. <https://doi.org/10.1038/s41562-020-0884-z>
- Biddlestone, M., Green, R., & Douglas, K. M. (2020). Cultural orientation, power, belief in conspiracy theories, and intentions to reduce the spread of COVID-19. *British Journal of Social Psychology*, 59(3), 663–673. <https://doi.org/10.1111/bjso.12397>
- Büssing, A., Recchia, D. R., Dienberg, T., Surzykiewicz, J., & Baumann, K. (2021). Awe/Gratitude as an experiential aspect of spirituality and its association to perceived positive changes during the COVID-19 pandemic. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.642716>
- Byrne, B. M. (2016). *Structural equation modeling with AMOS*. <https://doi.org/10.4324/9781315757421>
- Chang, M.-C., Chen, P.-F., Lee, T.-H., Lin, C.-C., Chiang, K.-T., Tsai, M.-F., Kuo, H.-F., & Lung, F.-W. (2021). The effect of religion on psychological resilience in healthcare workers during the coronavirus disease 2019 pandemic. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.628894>
- Conversano, C., Rotondo, A., Lensi, E., Vista, O. D., Arpone, F., & Reda, M. A. (2010). Optimism and its impact on mental and physical well-being. *Journal of Behavioral Medicine volume*, 6(1), 25–29. <https://doi.org/10.2174/1745017901006010025>
- del Castillo, F. A., del Castillo, C. D., & Corpuz, J. C. (2021). Dungaw: Re-imagined religious expression in response to the COVID-19 Pandemic. *Journal of Religion and Health*, 60(4), 2285–2305. <https://doi.org/10.1007/s10943-021-01266-x>
- Desalegn, Z., Deyessa, N., Teka, B., Shiferaw, W., Hailemariam, D., Addissie, A., Abagero, A., Kaba, M., Abebe, W., Nega, B., Ayele, W., Haile, T., Gebrehiwot, Y., Amogne, W., Kantelhardt, E. J., & Abebe, T. (2021). COVID-19 and the public response: Knowledge, attitude and practice of the public in mitigating the pandemic in Addis Ababa, Ethiopia (K. T. Wai, Ed.). *Plos One*, 16(1), e0244780. <https://doi.org/10.1371/journal.pone.0244780>
- Djalante, R., Lassa, J., Setiamarga, D., Sudjatma, A., Indrawan, M., Haryanto, B., Mahfud, C., Sinapoy, M. S., Djalante, S., Rafliana, I., Gunawan, L. A., Surtiari, G. A. K., & Warsilah, H. (2020). Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020. *Progress in Disaster Science*, 6, 100091. <https://doi.org/10.1016/j.pdisas.2020.100091>
- Dolinski, D., Dolinska, B., Zmaczynska-Witek, B., Banach, M., & Kulesza, W. (2020). Unrealistic optimism in the time of coronavirus pandemic: May it help to kill, if so-whom: Disease or the person? *Journal of Clinical Medicine*, 9(5), 1464. <https://doi.org/10.3390/jcm9051464>
- Dutra, C. C. D., & Rocha, H. S. (2021). Religious support as a contribution to face the effects of social isolation in mental health during the pandemic of COVID-19. *Journal of Religion and Health*, 60(1), 99–111. <https://doi.org/10.1007/s10943-020-01140-2>
- Efklides, A., & Moraitou, D. (2013). *A positive psychology perspective on quality of life*. Springer Netherlands. <https://doi.org/10.1007/978-94-007-4963-4>

- Ek, E., Remes, J., & Sovio, U. (2004). Social and developmental predictors of optimism from infancy to early adulthood. *Social Indicators Research*, 69(2), 219–242. <https://www.jstor.org/stable/27522141>
- Fernández, N. M., & Meirinhos, A. R. (2021). Adolescents' concerns, routines, peer activities, frustration, and optimism in the time of COVID-19 confinement in Spain. *Journal of Clinical Medicine*, 10(4), 798. <https://doi.org/10.3390/jcm10040798>
- Forgeard, M., & Seligman, M. (2012). Seeing the glass half full: A review of the causes and consequences of optimism. *Pratiques Psychologiques*, 18(2), 107–120. <https://doi.org/10.1016/j.prps.2012.02.002>
- Fournier, M., de Ridder, D., & Bensing, J. (1999). Optimism and adaptation to multiple sclerosis: What does optimism mean? *Journal of Behavioral Medicine*, 22(4), 303–326. <https://doi.org/10.1023/a:1018776618323>
- Fragkaki, I., Maciejewski, D. F., Weijman, E. L., Feltes, J., & Cima, M. (2021). Human responses to Covid-19: The role of optimism bias, perceived severity, and anxiety. *Personality and Individual Differences*, 176, 110781. <https://doi.org/10.1016/j.paid.2021.110781>
- Gandasari, D., & Dwidienawati, D. (2020). Content analysis of social and economic issues in Indonesia during the COVID-19 pandemic. *Heliyon*, 6(11), e05599. <https://doi.org/10.1016/j.heliyon.2020.e05599>
- Gassen, J., Nowak, T. J., Henderson, A. D., Weaver, S. P., Baker, E. J., & Muehlenbein, M. P. (2021). Unrealistic optimism and risk for COVID-19 Disease. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.647461>
- Gordeeva, T. O., Sychev, O. A., & Semenov, Y. I. (2020). Constructive optimism, defensive optimism, and gender as predictors of autonomous motivation to follow stay-at-home recommendations during the COVID-19 pandemic. *Psychology in Russia: State of the Art*, 13(4), 38–54. <https://doi.org/10.11621/pir.2020.0403>
- Gupta, V., Santosh, K., Arora, R., Ciano, T., Kalid, K. S., & Mohan, S. (2022). Socioeconomic impact due to COVID-19: An empirical assessment. *Information Processing Management*, 59(2). <https://doi.org/10.1016/j.ipm.2021.102810>
- Hamilton, J. B., Best, N. C., Barney, T. A., Worthy, V. C., & Phillips, N. R. (2021). Using spirituality to cope with COVID-19: The experiences of African American breast cancer survivors. *Journal of Cancer Education*, 37(5), 1422–1428. <https://doi.org/10.1007/s13187-021-01974-8>
- Hattke, F., & Martin, H. (2020). Collective action during the Covid-19 pandemic: The case of Germany's fragmented authority. *Administrative Theory & Praxis*, 42(4), 614–632. <https://doi.org/10.1080/10841806.2020.1805273>
- Hecht, D. (2013). The neural basis of optimism and pessimism. *Experimental Neurobiology*, 22(3), 173–199. <https://doi.org/10.5607/en.2013.22.3.173>
- Ho, M. Y., Cheung, F. M., & Cheung, S. F. (2010). The role of meaning in life and optimism in promoting well-being. *Personality and Individual Differences*, 48(5), 658–663. <https://doi.org/10.1016/j.paid.2010.01.008>

- Hu, D., Lou, X., Xu, Z., Meng, N., Xie, Q., Zhang, M., Zou, Y., Liu, J., Sun, G., & Wang, F. (2020). More effective strategies are required to strengthen public awareness of COVID-19: Evidence from google trends, *10*(1), 12. <https://pubmed.ncbi.nlm.nih.gov/32373339/>
- Isaacowitz, D. M. (2005). The gaze of the optimist. *Personality and Social Psychology Bulletin*, *31*(3), 407–415. <https://doi.org/10.1177/0146167204271599>
- Kranz, D., Niepel, C., Botes, E., & Greiff, S. (2020). Religiosity predicts unreasonable coping with COVID-19. *Psychology of Religion and Spirituality*. <https://doi.org/10.1037/rel0000395>
- Kuo, B. C. H. (2013). Collectivism and coping: Current theories, evidence, and measurements of collective coping. *International Journal of Psychology*, *48*(3), 374–388. <https://doi.org/10.1080/00207594.2011.640681>
- Lau, B. H. P., Chan, C. L. W., & Ng, S.-M. (2020). Resilience of Hong Kong people in the (COVID-19) pandemic: Lessons learned from a survey at the peak of the pandemic in Spring 2020. *Asia Pacific Journal of Social Work and Development*, *31*(1-2), 105–114. <https://doi.org/10.1080/02185385.2020.1778516>
- Leslie-Miller, C. J., Waugh, C. E., & Cole, V. T. (2021). Coping with COVID-19: The benefits of anticipating future positive events and maintaining optimism. *Frontiers in Psychology*, *12*. <https://doi.org/10.3389/fpsyg.2021.646047>
- Li, C. H., & Wu, J. J. (2011). The structural relationships between optimism and innovative behavior: Understanding potential antecedents and mediating effects. *Creativity Research Journal*, *23*(2), 119–128. <https://doi.org/10.1080/10400419.2011.571184>
- Li, J., & Zheng, H. (2020). Online information seeking and disease prevention intent during COVID-19 outbreak. *Journalism & Mass Communication Quarterly*, *99*(1), 69–88. <https://doi.org/10.1177/1077699020961518>
- Liekefett, L., & Becker, J. (2021). Compliance with governmental restrictions during the coronavirus pandemic: A Matter of personal self-protection or solidarity with people in risk groups? *British Journal of Social Psychology*, *60*(3). <https://doi.org/10.1111/bjso.12439>
- Loriol, M. (2015). Collective forms of coping and the social construction of work stress among industrial workers and police officers in france. *Theory & Psychology*, *26*(1), 112–129. <https://doi.org/10.1177/0959354315616877>
- Lyons, R. F., Mickelson, K. D., Sullivan, M. J., & Coyne, J. C. (1998). Coping as a communal process. *Journal of Social and Personal Relationships*, *15*(5), 579–605. <https://doi.org/10.1177/0265407598155001>
- MacDonald, G., Moen, A. C., & Louis, M. E. S. (2013). The national inventory of core capabilities for pandemic influenza preparedness and response: An instrument for planning and evaluation. *Influenza and Other Respiratory Viruses*, *8*(2), 189–193. <https://doi.org/10.1111/irv.12218>
- Maheshwari, A., & Jutta, V. (2020). Study of relationship between optimism and resilience in the times of COVID-19 among university students. *The International Journal of Indian Psychology*, *8*(3). <https://doi.org/10.31219/osf.io/5a3gs>

- Marmarosh, C. L., Forsyth, D. R., Strauss, B., & Burlingame, G. M. (2020). The psychology of the COVID-19 pandemic: A group-level perspective. *Group Dynamics: Theory, Research, and Practice*, 24(3), 122–138. <https://doi.org/10.1037/gdn0000142>
- McCain, K., & Bishen, S. (2022). Global health: 4 reasons to be optimistic despite current challenges. <https://www.weforum.org/agenda/2022/05/4-reasons-optimistic-future-global-health>
- Minister of Health of the Republic of Indonesia. (2020). Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/Menkes/382/2020 tentang Protokol kesehatan bagi masyarakat di tempat dan fasilitas umum dalam rangka pencegahan dan pengendalian Corona Virus Disease 2019 (Covid-19) [Decree of The Minister of Health of the Republic of Indonesia Number HK.01.07/Menkes/382/2020 about health protocols for the public in public places and facilities in the context of prevention and control of Corona Virus Disease 2019 (Covid-19)]. <https://covid19.go.id/p/regulasi/keputusan-menteri-kesehatan-nomor-hk0107menkes3822020>
- Minza, W. M., Faturochman, Muhiddin, S., & Anggoro, W. J. (2022). Adaptasi individual dan kolektif: Respons masyarakat Indonesia menghadapi pandemi COVID-19 [Individual and collective adaptation: Indonesian people's response to the COVID-19 pandemic]. *Jurnal Psikologi Sosial*, 20(1), 1–15. <https://doi.org/10.7454/jps.2022.03>
- Mohsen, F., Bakkar, B., Armashi, H., & Aldaher, N. (2021). Crisis within a crisis, COVID-19 knowledge and awareness among the Syrian population: A Cross-sectional study. *BMJ Open*, 11(4). <https://doi.org/10.1136/bmjopen-2020-043305>
- Naing, C., Tan, R. Y. P., Soon, W. C., Parakh, J., & Sanggi, S. S. (2012). Preventive behaviours towards influenza A(H1N1)pdm09 and factors associated with the intention to take influenza A(H1N1)pdm09 vaccination. *Journal of Infection and Public Health*, 5(6), 412–419. <https://doi.org/10.1016/j.jiph.2012.07.005>
- Nashori, F. (2013). Agama dan optimisme [Religion and optimism]. *JIP (Jurnal Intervensi Psikologi)*, 5(1), ii–iv. Retrieved July 6, 2022, from <https://journal.uui.ac.id/intervensipsikologi/article/view/3966>
- Olivia, S., Gibson, J., & Nasrudin, R. (2020). Indonesia in the time of Covid-19. *Bulletin of Indonesian Economic Studies*, 56(2), 143–174. <https://doi.org/10.1080/00074918.2020.1798581>
- Perez, T., Cromley, J. G., & Kaplan, A. (2014). The role of identity development, values, and costs in college STEM retention. *Journal of Educational Psychology*, 106(1), 315–329. <https://doi.org/10.1037/a0034027>
- Prazeres, F., Passos, L., Simões, J. A. R., Simões, P., Martins, C., & Teixeira, A. (2020). COVID-19-related fear and anxiety: Spiritual-religious coping in healthcare workers in Portugal. *International Journal of Environmental Research and Public Health*, 18(1), 220. <https://doi.org/10.3390/ijerph18010220>
- Rias, Y. A., Rosyad, Y. S., Chipojola, R., Wiratama, B. S., Safitri, C. I., Weng, S. F., Yang, C. Y., & Tsai, H. T. (2020). Effects of spirituality, knowledge, attitudes, and practices toward anxiety regarding

- COVID-19 among the general population in Indonesia: A Cross-sectional study. *Journal of Clinical Medicine*, 9(12), 3798. <https://doi.org/10.3390/jcm9123798>
- Roberto, A., Sellon, A., Cherry, S. T., Hunter-Jones, J., & Winslow, H. (2020). Impact of spirituality on resilience and coping during the COVID-19 crisis: A Mixed-method approach investigating the impact on women. *Health Care for Women International*, 41(11-12), 1313–1334. <https://doi.org/10.1080/07399332.2020.1832097>
- Sabouripour, F., Roslan, S., Ghiami, Z., & Memon, M. A. (2021). Mediating role of self-efficacy in the relationship between optimism, psychological well-being, and resilience among Iranian students. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.675645>
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247. <https://doi.org/10.1037/0278-6133.4.3.219>
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (2001). Optimism, pessimism, and psychological well-being. In E. C. Chang (Ed.), *Optimism pessimism: Implications for theory, research, and practice* (pp. 189–216). American Psychological Association. <https://doi.org/10.1037/10385-009>
- Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to Structural Equation Modeling*. Psychology Press. <https://doi.org/10.4324/9781410610904>
- Schwaiger, E., Zehra, S. S., & Suneel, I. (2021). Attachment, religiosity, and perceived stress among religious minorities during the COVID-19 pandemic: The impact of cultural context. *Journal of Psychology and Theology*, 50(3), 369–383. <https://doi.org/10.1177/009164712111025532>
- Seligman, M. E. P. (2006). *Learned optimism: How to change your mind and your life*. Vintage Books.
- Shamblaw, A. L., Rumas, R. L., & Best, M. W. (2021). Coping during the COVID-19 pandemic: Relations with mental health and quality of life. *Canadian Psychology / Psychologie Canadienne*, 62(1), 92–100. <https://doi.org/10.1037/cap0000263>
- Sultan, & Rapi, M. (2020). Positive discourse analysis of the Indonesian government spokesperson's discursive strategies during the Covid-19 Pandemic. *GEMA Online Journal of Language Studies*, 20(4), 251–272. <https://doi.org/10.17576/gema-2020-2004-14>
- Suryahadi, A., Izzati, R. A., & Suryadarma, D. (2020). Estimating the impact of Covid-19 on Poverty in Indonesia. *Bulletin of Indonesian Economic Studies*, 56(2), 175–192. <https://doi.org/10.1080/00074918.2020.1779390>
- Suseno, M. N. (2013). Efektivitas pembentukan karakter spiritual untuk meningkatkan optimisme terhadap masa depan anak yatim piatu [Effectiveness of spiritual character formation to increase optimism for the future of orphans]. *Jurnal Intervensi Psikologi (JIP)*, 5(1), 1–24. <https://doi.org/10.20885/intervensipsikologi.vol5.iss1.art1>
- Tejedor, C. C., Serrano, M. T., & Cencerrado, A. (2021). Psychological impact in the time of COVID-19: A cross-sectional population survey study during confinement. *Journal of Health Psychology*, 27(4), 974–989. <https://doi.org/10.1177/1359105320985580>

- Thomas, J., & Barbato, M. (2020). Positive religious coping and mental health among christians and muslims in response to the COVID-19 Pandemic. *Religions*, 11(10), 498. <https://doi.org/10.3390/rel11100498>
- tze Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Uribe, F. A. R., de Souza Godinho, R. C., Machado, M. A. S., da Silva Gonçalves Oliveira, K. R., Espejo, C. A. N., de Sousa, N. C. V., de Sousa, L. L., Barbalho, M. V. M., Piani, P. P. F., & da Silva Pedroso, J. (2021). Health knowledge, health behaviors and attitudes during pandemic emergencies: A systematic review. *Plos One*, 16(9), e0256731. <https://doi.org/10.1371/journal.pone.0256731>
- Vos, J. (2020). *The psychology of covid-19: Building resilience for future pandemics*. SAGE Publications.
- Widiyanto, A. (2020). Religion and COVID-19 in the era of post-truth: The case of Indonesia. *International Journal of Islamic Thought*, 12(1), 1–12. <https://doi.org/10.24035/ijit.18.2020.176>
- Wlodarczyk, A., Basabe, N., Pérez, D., Amutio, A., García, F. E., Reyes, C., & Villagrán, L. (2016). Positive effects of communal coping in the aftermath of a collective trauma: The case of the 2010 Chilean earthquake. *European Journal of Education and Psychology*, 9(1), 9–19. <https://doi.org/10.1016/j.ejeps.2015.08.001>
- Wolf, L. J., Haddock, G., Manstead, A. S. R., & Maio, G. R. (2020). The importance of (shared) human values for containing the COVID-19 pandemic. *British Journal of Social Psychology*, 59(3), 618–627. <https://doi.org/10.1111/bjso.12401>
- Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*, 277, 55–64. <https://doi.org/10.1016/j.jad.2020.08.001>
- Zarrouq, B., Abbas, N., Hilaly, J. E., Asri, A. E., Abbouyi, S., Omari, M., Malki, H., Bouazza, S., Moutawakkil, S. G., Halim, K., & Ragala, M. E. (2021). An investigation of the association between religious coping, fatigue, anxiety and depressive symptoms during the (COVID-19) pandemic in Morocco: A Web-based cross-sectional survey. *BMC Psychiatry*, 21(1). <https://doi.org/10.1186/s12888-021-03271-6>

Appendix

Figure 3
Results of Factor Analysis and Intercorrelation Between Latent Variables

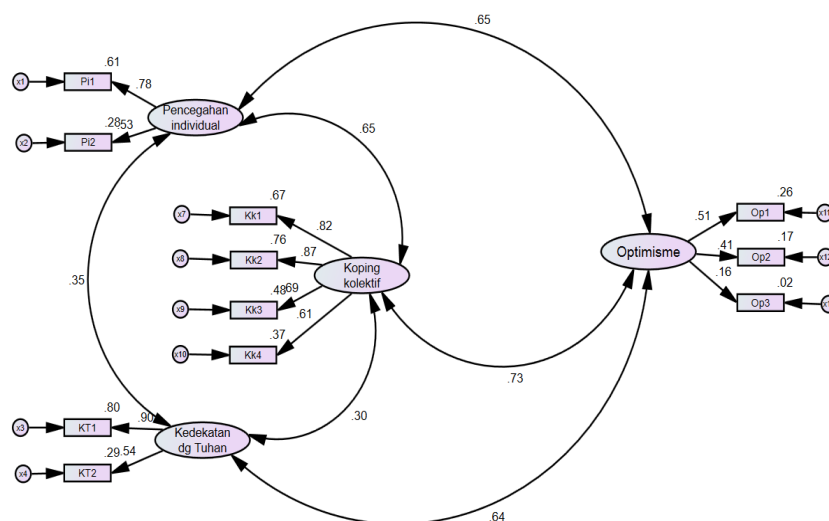


Table 3
Estimated Role of Observed Variables on Latent Variables

Role	Standardized estimation	Significance
Pi1 on preventive behavior	.532	<.001
Pi2 on preventive behavior	.778	<.001
KT1 on closeness to God	.539	<.001
KT2 on closeness to God	.897	<.001
Kk1 on collective coping	.607	<.001
Kk2 on collective coping	.691	<.001
Kk3 on collective coping	.871	<.001
Kk4 on collective coping	.817	<.001
Op1 on optimism	.512	<.001
Op2 on optimism	.410	<.001
Op3 on optimism	.157	<.01