Coronavirus Pandemic

The role of anxiety, stigma, religiosity, and economic condition in COVID-19 preventive efforts among lecturers

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Abstract

Introduction: The COVID-19 pandemic influences the spirituality and mental health of individuals. It also has caused a global economic recession. COVID-19 is easily transmitted and causes death. Consequently, severe prevention and control measures of COVID 19 are required in this situation. This study aims to analyze the relationship between anxiety, stigma, religiosity, economic conditions, and the prevention of COVID-19.

Methodology: A cross-sectional study was designed. The data collection was taken through online surveys. The population in this study is ninety-two lecturers from the College of Health Sciences and the State Islamic Institute who were chosen using a non-probability snowball sampling technique. Data analysis used logistic regression analysis.

Results: The results showed that there was a relationship between anxiety (p = 0.001), stigma (p = 0.008), religiosity (p = 0.005) and the efforts to prevent COVID-19, while economic conditions (p = 0.882) were not related to the preventive efforts. The results of multivariate analysis indicated that the most influential variable affecting COVID-19 preventions was the level of anxiety, with an Odds Ratio of 4.9.

Conclusions: There was a relationship between anxiety, stigma, religiosity, and COVID-19 preventions, while there was no relationship between economic conditions and COVID-19 preventions. The most influencing variable was anxiety. Respondents must be able to manage anxiety levels related to COVID-19 with good coping strategies.

Introduction

Mass tragedies, such as infectious diseases, often incite fear and anxiety, which can cause problems to the behavior and psychology of many human beings in the population [1]. WHO declared COVID-19 to be the sixth public health emergency and becoming an international concern. The study's findings explain that individuals could experience anxiety, trauma, suicidal thoughts, and panic during an infectious disease outbreak [2]. The current COVID-19 pandemic considerably impacts global mental health, but it has received less attention. Thus, it is challenging for patients, society, government, organizations, and health workers to overcome the problem [3]. On January 14, 2021, Indonesia ranked in the twentieth with 869,600 confirmed cases of COVID-19, and the death toll was 25,246 people. Then, based on the worldometer, by January 15, 2021, globally confirmed cases of COVID-19 had reached 93,536,554 with more than 2,002,465

deaths [4]. COVID-19 will keep increasing every day because of the high confirmed cases [5].

COVID-19 is a global phenomenon that causes a high level of anxiety for health workers [6]. This pandemic raises concerns that lead to increasing anxiety [7]. During the outbreak, research conducted in China disclosed a link between COVID-19 and increasing anxiety, depression, and stress [8]. The survey results showed 63% of respondents experienced anxiety due to the COVID-19 pandemic [9]. It also showed out of 7,143 students, 2.7% experienced moderate anxiety and 0.9% experienced severe anxiety [10]. The stigma of diseases is a central issue in public health [11]. COVID-19 transmission creates various attitudes, beliefs, stereotypes, and stigma [12]. Two of the most common problems caused by COVID-19 are social support and stigmatization [13].

COVID-19 causes psychological problems in society. Several studies concluded that high religiosity affects lower stress levels, especially in the workplace

[14]. The impacts of the pandemic raise concerns about the role of religiosity in everyday life [15]. The effort to prevent COVID-19 transmission by not leaving home has been proven to reduce infections. However, this action has an impact on economic sustainability [16]. COVID-19 outbreak surely impacts aspects of human life, such as fears of an economic crisis and recession [17]. COVID-19 pandemic not only causes a health crisis, but it also affects the economy global, such as decreasing income, increasing unemployment, disruption of services, and declining in manufacturing [18].

These fears lead to higher anxiety levels, and public fright of COVID-19 can lead to stigma and discrimination [19]. The stigma affects the community and also hinders international trade [20]. Therefore, people need to take preventive measures [21]. This study aims to analyze the relationship between anxiety, stigma, religiosity, economic conditions, and the prevention efforts of COVID-19.

Methodology

The design of the study was a cross-sectional study [22]. The study population comprises ninety-two lecturers from the College of Health Sciences and the Islamic Institute of Cirebon State chosen by non-probability snowball sampling technique. The inclusion criteria of this study were respondents who were willing to be the research sample and healthy, and the exclusion criteria were respondents who suffered from COVID-19.

Data of the study were collected by compiling research instruments for stigma, religiosity, and economic conditions then tested the validity and reliability of the variables. As for the anxiety questionnaire, it used the standard HARS instrument. The data collection was accomplished through an online survey using a google form application questionnaire.

Data were analyzed by logistic regression test. The studied variables were anxiety, stigma, religiosity, economic conditions, and efforts to prevent COVID-19.

Results

The results showed that the average age of the respondents was 39.63 years old. Sixty-three of them were female (68.5%), and sixty-two of them worked in healthcare (67.39%).

Table 1 shows that the respondents with a low stigma (66.7%) undertook low prevention efforts, while those with high stigma (66.2%) undertook high prevention efforts. The chi-square test obtained p = 0.008 (< 0.05), which meant that there was a relationship between stigma and efforts to prevent COVID-19. Then, those who experienced mild anxiety (88.9%) and moderate anxiety (75.0%) also undertook high preventive measures. The chi-square test obtained p = 0.001, which also meant there was a relationship between anxiety and COVID-19 prevention efforts. Furthermore, for religiosity, respondents with a low level of religiosity (80.0%) undertook low preventive efforts, while those with a high level of religiosity (63.6%) undertook high prevention efforts. The chi-square test showed that p=0.005 meant that there was a relationship between religiosity level with Covid-19 preventive efforts. As for economic conditions, respondents with poor economic conditions (53.6%) undertook high prevention efforts, and respondents with good economic conditions (57.8%) also undertook high prevention efforts. It was obtained p = 0.882 by the chi-square test, which meant there was no relationship between economic conditions and efforts to prevent COVID-19.

Based on multivariate analysis results, the most significant variable influencing efforts to prevent COVID-19 was anxiety with an Odds Ratio (OR) of 4.9 (95% CI = 1.59-15.63). This indicated that individuals who did not experience anxiety would have a five times higher risk of taking moderate preventive measures

Table 1. Relationship between stigma, level of anxiety, level of religiosity, economic condition, and Covid-19 preventive efforts.

Variable		Covid-19 Preventive Efforts						*p*-value
		Low		High		Total		
		n	%	n	%	n	%	
Stigma	Low	18	66.7	9	33.3	27	100	0.008
	High	22	33.8	43	66.2	65	100	
Level of Anxiety	No Anxiety	35	56.5	27	43.5	62	100	
	Mild Anxiety	2	11.1	16	88.9	18	100	0.001
	Moderate Anxiety	3	25.0	9	75.0	12	100	
Level of Religiosity	Low	12	80.0	3	20.0	30	100	0.005
	High	28	36.4	49	63.6	62	100	
Economic Condition	Poor	13	46.4	15	53.6	28	100	0.882
	Good	27	42.2	37	57.8	64	100	

than individuals who experienced anxiety (mild and moderate). Based on the regression coefficient value, an individual experiencing anxiety (mild and moderate) and having high religiosity had a high probability of undertaking preventive measures by 76%.

Discussion

The Relationship between Stigma and Covid-19 Prevention Efforts

The results show that there is a relationship between stigma and efforts in preventing COVID-19. This result aligns with the previous research, which states there is a positive relationship between social stigma and the impacts of COVID-19. Social stigma has disrupted public thoughts and can influence behavior [23]. The community behavior in this study means one of the efforts in preventing COVID-19 that is influenced by social stigma.

Social stigma in the health context is a negative relationship between individuals or groups toward certain characteristics of diseases [24,25]. The data prove that stigma and fear of infectious diseases obstruct health care providers from doing various roles and responsibilities [24]. Respondents in this study, namely lecturers also health service personnel in hospitals, have numerous workloads and mental stress due to being front line in response to COVID-19. To overcome the social and psychological effects of COVID-19, outstanding supports from family, friends, and health workers is needed [26].

The Relationship of Anxiety with Covid-19 Prevention Efforts

Based on the results of the study, it is obtained that there is a relationship between anxiety level and efforts in preventing COVID-19. This result aligns with the previous research, which states anxiety related to the coronavirus has a significant effect on social attitudes [27], and there is a relationship between anxiety and coping strategies of a family who previously has records of violent behavior [28]. Social attitudes and coping strategies have closed behaviors that affect efforts in preventing COVID-19.

Anxiety is an unpleasant emotional state characterized by subjective feelings such as tension, fear, worry and signified by the active central nervous system [29,30]. People who experience anxiety tend to behave for seeking serious help [31]. When anxiety emerges in society due to the COVID-19 pandemic, prevention efforts are needed to be increased. In this situation, online mental health consultations are required to communicate information regarding COVID-19 [7,30,21,31]. The pandemic has become a source of stress for health workers and lecturers in accomplishing their duties. Stress is one of the sources that can affect cognitive conditions leading to despair, anger, and depression [32].

Relationship between Religious Level and COVID-19 Prevention Efforts

The results show that there is a relationship between the level of religiosity and efforts to prevent COVID-19. These results align with the previous research, which states that there is a positive relationship between religiosity and prosocial behavior. High religiosity will increase prosocial behavior [33], performing religious obligations has a significant effect on the prevalence of COVID-19 [34]. Religious attitudes affect 83.80% of a clean and healthy lifestyle in society [35].

Religiosity is a condition that encourages someone to behave according to their religion [36]. In this study, it is proven that the religiosity level of the respondents is related to the prevention of COVID-19. Effective coping strategies must be implemented by managing stress well [28] to deal with stressful situations.

Relationship between Economic Conditions and COVID-19 Prevention Efforts

Based on the research results, it is identified that there is no relationship between economic conditions and the prevention of COVID-19. This result does not align with the prior studies, which states COVID-19 will keep disrupting economic activity and harming manufacture and service industries, especially in developed countries [18]. COVID-19 pandemic causes a challenge to the health system, and the risk for health workers is the most considerable vulnerability, considering that most health workers cannot work remotely due to being needed in the front line [37].

An occupation can determine socioeconomic status, health problems, and work environments for an individual. Besides, an occupation also determines the earned income [38]. This study indicates that there is no relationship between economic conditions and efforts to prevent COVID-19. This is because there are several possibilities, including characteristics of the respondents who are lecturers who earn a regular income. Economic conditions do not directly impact efforts in preventing COVID-19. Therefore, the findings explain the efforts in preventing COVID-19 rely on the occupations of the affected society.

The Most Significant Variable in COVID-19 Prevention Efforts, Anxiety Level

Variable that significantly affects the effort to prevent COVID-19 of this study is the level of anxiety with an Odds Ratio (OR) of 4.9. This indicates that individuals who do not experience anxiety have a five times higher risk of undertaking moderate preventive measures than individuals who experience anxiety (mild and moderate). The results of this study align with the results of previous studies stating the high level of anxiety of more than 80% of people are preoccupied with COVID-19 thoughts [7]. Thoughts of COVID-19 will influence an individual to take preventive actions to prevent transmission. The research hypothesis proves that the anxiety of the lecturers has numerous influences on preventing COVID-19 due to thinking disorders and worries about the COVID-19 pandemic.

Health care providers are at the forefront of COVID-19 prevention, and their mental health is a priority [39]. COVID-19 pandemic situation has caused mental health problems [40]. Respondents in this study work concurrently in health services, so they are vulnerable to anxiety-related disorders. Coping with anxiety due to the COVID-19 pandemic requires natural adaptation or coping in everyday life [31].

Conclusions

The results showed a relationship between anxiety, stigma, religiosity, and efforts to prevent COVID-19, while the economic condition was not related to the efforts. The most significant variable in preventing COVID-19 was the level of anxiety with the Odds Ratio (OR) of 4.9. This indicated that individuals who did not experience anxiety would have five times higher risk of undertaking moderate preventive measures than individuals who experienced it. Furthermore, the regression coefficient value showed that an individual who experienced anxiety and had high religiosity would have a high probability of undertaking preventive measures by 76%. Respondents must be able to manage anxiety due to COVID-19 with the right coping strategies. Be wise in receiving information and have mental health consultations online.

Authors' Contribution
Cucu Herawati made research proposals including research design and data analysis, Nuniek tri wahyuni and Lilis banowati collected research data, Herlinawati and Awis hamid dani processed and interpreted data, Syaeful bkahri and R. Nur abdurakhman analyzed data and prepared initial published articles. All authors reviewed the manuscript and approved the final manuscript.

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