INDONESIAN JOURNAL OF COMMUNITY HEALTH NURSING
Vol. 6, No. 1 February 2021
https://e-journal.unair.ac.id/IJCHN

PATH ANALYSIS OF SOCIAL SUPPORT AS DETERMINANT OF ANXIETY IN PEOPLE AT RISK OF COVID-19 DURING THE PANDEMIC

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ARTICLE HISTORY

Received: 15 December 2020
Accepted: 9 February 2021

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ABSTRACT

Introduction: Coronavirus disease 2019 (Covid-19) is an acute respiratory syndrome with a variety of specific symptoms that can lead to fatal death, causing public anxiety about contracting this disease and uncertainty of health status. The purpose of this study was to determine the path analysis of the effect of social support on anxiety for people at risk of Covid-19 during the pandemic.

Method: The design was an explanatory study with a population of all Covid-19 People at Risk in Kemlagi District, Mojokerto Regency, with a sample of 150 respondents by random sampling. The exogenous variable was social support which is measured using the Social Support Questionnaire (SSQ). The endogenous variable was anxiety measured by the GAD-7 (Generalized Anxiety Disorder-7) questionnaire which consists of 7 questions about signs and symptoms of normal/appropriate affective, cognitive, and physical behavior. The analysis with Structural of Equation Model (SEM) with Partial Lease Square (PLS) approach with theory-based model development and path diagram development.

Result: The level of anxiety of people at risk in facing the Covid-19 outbreak is directly affected by emotional support (path coefficient of 0.516 and statistical T value of 8.289), and information support about Covid-19 with a path coefficient of 0.286 and statistical T value of 3.868. Instrumental support has an indirect effect on anxiety (significance probability (P) 0.385> 0.05). The findings in this study are that social support (emotional and informational) can reduce the level of anxiety of people at risk of Covid-19 during the pandemic.

Conclusion: When people are at risk of facing the Covid-19 outbreak, social support helps improve people's ability to the interpretation of stressors during the pandemic properly, and utilize the resources used in solving problems, and good coping efforts, so that the level of anxiety during the pandemic decreased.

Keywords

social support; anxiety; covid-19

Cite as:

Azizah, L. M., Zainuri, I., & Kotijah, S. (2021). Path Analysis of Social Support as Determinant of Anxiety in People at Risk of Covid-19 during The Pandemic. *Indonesian J. of Community Health Nurs.*, 6(1), 12-17. Doi: 10.20473/ijchn.v6i1.27308

INTRODUCTION

Coronavirus disease 2019 or known as Covid-19, is a group of acute respiratory diseases that have occurred in Wuhan, Hubei China, since December 2019 (Huang and Zhao, 2020a). Covid-19 is a different type of coronavirus that causes an acute respiratory syndrome that has developed rapidly around the world. (Shuja, Aqeel, Jaffar, & Ahmed, 2020).The mortality rate is 2.3% greater than that of ordinary influenza and in contrast to severe acute respiratory syndrome (SARS), it is more at risk of transmitting to others (Bouey, 2020). On March 11, WHO declared that the Covid-19 outbreak was categorized as a "pandemic" because the virus was spreading around the world. The coronavirus pandemic in Indonesia began with the discovery of sufferers of the 2019 coronavirus on March 2, 2020.

Until now, on May 12, 2020, 14,749 positive cases of Covid-19 have been confirmed, with 10,679 active cases, 3,063 recovered cases, and 1,007 deaths. There are 1766 confirmed cases of Covid-19 in East Java (Kemenkes, 2020). Mojokerto Regency is also a red zone for the spread of Covid-19, with 612 cases. The highest number of cases in The Mojokerto Regency is in the Kemlagi District area (https://covid19.mojokertokab.go.id).

Covid-19 has a real impact on people's psychology, especially individuals who live in the Covid-19 red zone or what are known as people at risk. People at risk are a person who, when and or within 14 days, comes from an infected country/region and has no symptoms (healthy) (Li et al., 2020). Those who experience anxiety because of uncertain health qualities develop obsessive-compulsive behavior, such as repeated temperature checks, repeated hand washing, and sterilization. Furthermore, it is mandatory to carry out independent and strict quarantine if signs and symptoms resembling Covid-19 appear. It can lead to rejection, discrimination, and stigmatization from society (Brooks et al., 2020).

The psychological effects often experienced are loneliness, rejection, stress or anxiety, depression, insomnia, and hopelessness. Some of these cases might even increase the risk of aggression and suicide (Xiang et al., 2020). Research conducted by (Huang & Zhao, 2020b), the prevalence of generalized anxiety disorder (GAD), depressive symptoms, and the overall quality of sleep in the community were 35.1%, 20.1%, and 18.2%, respectively. Another study conducted by (Özdin & Bayrak Özdin, 2020) also stated that 23.6% of the total population experienced depression, 45.1% experienced anxiety during the Covid-19 pandemic in Turkey.

When the Covid-19 outbreak began, some people with mild symptoms suspected of infection have limited contact with other people and the environment to self-isolate at home. Even though these individuals do not experience infection and remain physically healthy, they often experience negative psychological effects and impaired sleep quality (Xiao, Zhang, Kong, Li, & Yang, 2020a). Mental health is important considerations for those undergoing self-isolation because of the increased risk of COVID-19 infection. Psychological well-being and good sleep quality are influenced by many local socio- cultural factors (Yao, Yu, Cheng, & Chen, 2008). Social support is a significant social factor that refers to the care and support of others. Adequate social support previously has been reported to have positive effects on psychological health and sleep function (Xiao, Zhang, Kong, Li, & Yang, 2020b).

The purpose of this study was to determine the effect of social support on anxiety for people at risk of Covid-19 during the pandemic.

METHOD

This research was an explanatory study with a cross-sectional study design. The population of this study was all people at risk of Covid-19 in Kemlagi District Mojokerto Regency, with a sample of 150 respondents' literate and cooperative. The sampling of this research was probability sampling with random sampling.

The endogenous variable was anxiety measured used a modified Chinese version of the questionnaire (GAD-7) consisting of 7 questions about signs and symptoms of appropriate affective, cognitive, and physical behavior. Participants were asked how often they had been bothered by any symptoms during the past 2 weeks. "Not at all", "multiple days", "more than half a day", and "almost daily" response options, question items are scored 0, 1, 2, and 3 respectively. A score of 15 or more represents the cut point for identifying cases of anxiety (Gao et al., 2020). The exogenous variable was social support which was measured using The Social Support Questionnaire (SSQ) to measure the amount of support received by respondents during the Covid 19 pandemic consist 20 items question with indicators of emotional support, informational and instrumental support (Huang & Zhao, 2020b). The score on each item was determined by the frequency indicated on items, and a higher score indicated a higher frequency of support. The validity of the questionnaire, the value of Cronbach's negligence is 0.936 or more than 0.7, so the social support questionnaire is said to be reliable.

This study was conducted in the Kemlagi Subdistrict of Mojokerto Regency from August until September 2020. All study subjects reported their demographic data and completed two questionnaires standard assessing their social support and general anxiety disorders during the COVID-19 pandemic. To ensure the accuracy of the research survey, we set boundaries for some items (age range is limited to 20-50 years old, some questions need to be answered backward) and encouraged participants to answer carefully through the explanation of the questionnaire by the researcher. Completing the research questionnaire took 15-30 minutes.

Statistical analysis with Structural of Equation Model (SEM) with Partial Least Square (PLS) approach with theory-based model development and path diagram development which assisted by software SmartPLS 3 version for windows. Steps of evaluation the following structural equations: 1) Evaluation of the measurement of the outer model to determine the validity and reliability of indicators measuring latent variables. 2) Evaluation of the structural model (inner model) taking into account the goodness of fit of Q-Square to see the proportion of the relationship between variables. 3) Test the hypothesis by looking at the significant number of the path coefficient structural equation

Ethical considerations for all participants agreed to sign an informed consent form. Before starting the study by filling in the informed consent provided by the researcher. This study had obtained permission from local authorities and ethical approval from ethics by the Husada School of Health Science of Maluku number RK.020/KEPK/STIK/III/2021.

RESULTS

Characteristics participant of the 150 samples were analyzed as the first step the demographic variables shown in Table 1. Table 1 shows the mean age (standard deviation) of the participants was 32.7 ± 41.3 years. Most of the participants were female (69.3%), and have a high school education background as many as 103 (68.7%). Among this sample, 111 (74%) participants were employed with married status were 135 (90%).

The prevalence of social support and anxiety of respondents in the Kemlagi during the COVID-19 outbreak are respectively shown in Table 2. Overall the prevalence of social support found that the core aspects of Informative Support were at most poor. Respondents have average social support is not good (more than the median). The value of emotional

Table 1. Demographic Data Characteristics Respondents of Social Support as Determinant of Anxiety in People at Risk of Covid-19 during The Pandemic, August 2020 (n=150)

Characteristics	n	%
Age		
20-30 Years	49	32.7
31-40 Years	39	26
41-50Years	62	41.3
Sex		
Male	46	30.7
Female	104	69.3
Education		
Elementary School	0	0
Junior High School	12	8
Senior High School	103	68.7
Higher Education	35	23.3
Occupation		
Employees	111	74
Housewife	39	26
Marital status		
Married	135	90
Widow	15	10

Table 2. Frequency Distribution of Prevalence Social Support and Anxiety of People at Risk of Covid-19 during The Pandemic, August 2020 (n=150)

Social Support Indicator	Not Good		Good		Total		Ẋ
	(f)	(%)	(f)	(%)	∑	(%)	
Emotional Support	78	52	72	48	150	100	
InformativeSupport	92	61	58	39	150	100	
InstrumentalSupport	82	55	68	45	150	100	
Social Support	84	56	66	44	150	100	27.8
Anxiety Indicator	**Anxiety**		**Not Anxiety**		**Total**		**Ẋ**
	(f)	(%)	(f)	(%)	∑	(%)	
Cognitive and Affective	70	47	80	53	150	100	
Physical and Behavioral	68	45	82	55	150	100	
Anxiety	69	46	81	54	150	100	26

Table 3. Outer Weight and Inner Weight indicators of the Social Support as Determinant of Anxiety in People at Risk of Covid-19 during The Pandemic, August 2020 (n=150)

Outer Weight					
Exogenous	**Loading Original**	**Coef**	**STDEV**	**T Statistics**	**P Values**
Emotional Support	0.886	0.886	0.023	38.829	0.000
Informative Support	0.892	0.893	0.021	41.838	0.000
Instrumental Support	0.850	0.850	0.029	29.470	0.000
Anxiety	0.897	0.898	0.015	61.408	0.000
Inner weight					
Effect		**Coefficient Original**	**T Statistics**	**P Values**	**Results**
Emotional Support (X1) → Anxiety		0.516	8.289	0.00	Significant
Informative Support (X2)→ Anxiety		0.286	3.868	0.00	Significant
Instrumental Support (X3)→ Anxiety		0.05	0.869	0.385	Not ssignificant

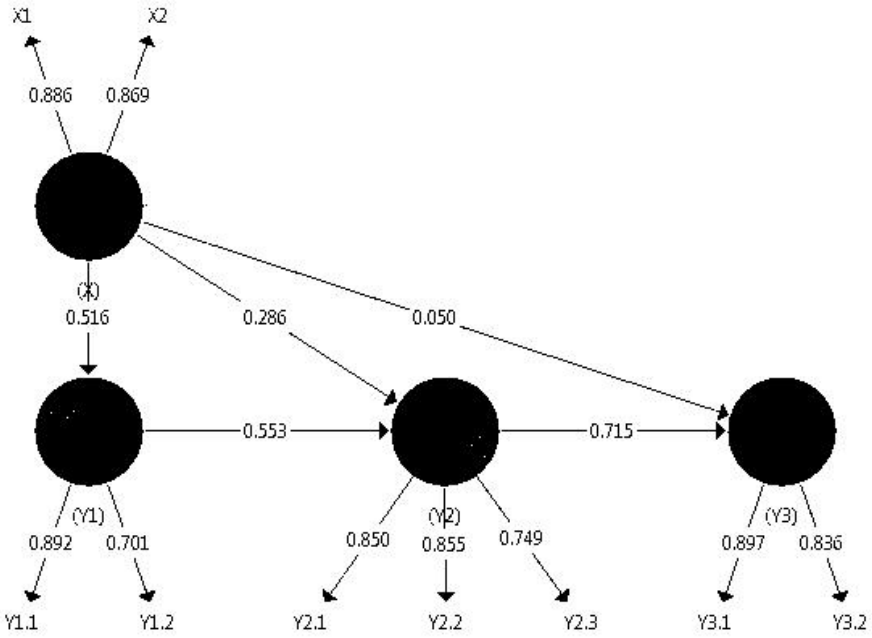

Figure 1. The final result of the Path Analytic of Social Support as Determinant of Anxiety in People at Risk of Covid-19 during The Pandemic, August 2020 (n=150)

support is the highest, with different levels of each indicator. In general, the results of emotional support are mostly in the high category compared to other indicators of other Social Support.

The prevalence of anxiety shows that people who at risk in the face of the Covid-19 outbreak experience mild anxiety symptoms. The symptoms experienced include cognitive, affective, physical, and behavioral symptoms. It cause of a health problem is more negative or worse, although many also have positive perceptions about stressors so that the anxiety their experience is reduced (as shown in table 2 above). It can be concluded that Social Support for people at risk in dealing with the Covid- 19 outbreak is not good, the community lives more at home and avoids social activities so that they feel less support from one another.

The results of the outer model test of all indicators shown in Table 3, which have a loading factor value> 0.5 with a statistical T value ≥ 1.96 and P ≤ 5%, indicate that this variable is a significant dimension of the latent variable. Testing the goodness of fit on the outer weight to determine the validity and reliability of the variables by looking at the value of Composite Reliability (CR).A satisfactory value if> 0.6. Average Variance Extracted (AVE) coefficient of the mean of variance extraction to test the reliability of the construct variables. The minimum AVE value to state the reliability of variable instruments is 0.5. The results of measuring the reliability and validity of the latent variable constructs show that all indicator blocks measure the constructs of emotional support (X1), informative support (X2), instrumental support
(X3), and Anxiety (Y1) are valid and reliable with reliability values. composite> 0.6, Cronbach's Alpha more than 0.5 and the mean value of the extracted variants> 0.5. This means that the indicators developed in the model are declared valid and reliable to measure the latent variables used in this study (as shown in table 3).

After the outer weight test is carried out on all latent variables and the goodness of fit is obtained, the results are valid and reliable. Then the latent variables can be continued in the structural model analysis of inner weight. The results of the structural path coefficient in the diagram show that all indicators are valid on latent variables because the value of the convergent Validity test is> 0.6. The relationship between latent variables can be seen in the structural path coefficients that are built. The results of testing the complete structural path model (inner weight) along with the loading factor value with the SmartPLS Partial Least Square program can be seen in table 3.

The calculation of Q-Square value it can be interpreted that the model can explain the quality of life of the elderly by 93.7%, while the remaining 6.3% is explained by variables other than emotional support (X1), informative support (X2), instrumental support (X3) and Anxiety (Y1). This model can also be said to be fit and predictors of latent variables have a strong influence on anxiety on people at risks of the Covid- 19 during the pandemic, seen from the Q^2 value above 0.00. This is interpreted as saying that the model is fit and predictors of latent variables emotional support, informative support, and instrumental support have a strong influence on anxiety with NFI value> 0.

Based on the equation, the relationship between variables (Figure 1) can be interpreted as follows: Emotional support has a direct effect on informative support by 51.6%, while the rest is the influence of

other factors. Informative support is influenced directly by emotional support 2.6 % and the direct effect of informative support by 55.3%, while the amount 0.42 is the indirect effect. Anxiety is directly affected by emotional support of only 5 percent and the direct effect of Informative Support is 71.5%, while the indirect effect is through emotional support.

Hypothesis testing is done by analyzing the fit structural models so that each path coefficient can be interpreted as shown in Figure 1 above, to prove that:
(1) Emotional support has a significant positive effect on Informative Support. The test results obtained a path coefficient of 0.516, the value of T statistic = 8,289. (2) Emotional support has a positive and significant effect on increasing instrumental support. The loading factor path coefficient is 0.286 and at a significance level of 5% and p-value = 0.00. (3) Emotional support is not significant in increasing anxiety. The test results obtained a path coefficient of 0.05, a statistical T value of 0.869 <T table 1.97, and a significance probability (P) 0.385> 0.05. It means that every time there is an increase in emotional support, it will increase anxiety by 5% and its increase is less significant. Thus it can be concluded that the third hypothesis is not proven, namely the dimensions of emotional support have a less positive effect on people's anxiety at risk during the Covid-19 Pandemic.

DISCUSSION

The Effect of social support on the decrease in the anxiety level of people at risk in the face of the Covid-19 outbreak, research facts show that social support will reduce the anxiety level of people at risk in the face of the Covid-19 outbreak by 5% and this is a significant increase. Coronavirus disease 2019 is a group of acute respiratory diseases with unknown causes. Those experiencing anxiety because of the uncertainty of their health status. And It is also developing obsessive-compulsive symptoms, such as repeated temperature checks and sterilization. Furthermore, they must carry out independent, strict quarantine if signs and symptoms resembling Covid-19 appear and monitored by local health authorities. It can lead to rejection, discrimination, and stigmatization from society (Brooks et al., 2020).

When people at risk face the Covid-19 outbreak, emotional support helps increase the ability of people at risk to interpret stressors properly and utilize their resources to solve problems, so that the level of anxiety is mild and good sleep quality (Asmundson & Taylor, 2020). Emotional support affects the ability of people at risk to solve problems (coping effort), either with problem management coping strategies or emotional regulation, but has a weak contribution to choosing effective coping strategies so that anxiety levels are mild. Emotional support affects improving the quality of sleep of people at risk during the Covid-
19 pandemic, by increasing psychological well-being, independence in daily functional activities, perceptions of positive health, and increasing the ability of people at risk to take advantage of the surrounding environment in facing the Covid- 19.

Social support affects the ability of people at risk to solve problems (coping effort), be it with problem management coping strategies or emotional regulation, but has a weak contribution to the selection of effective coping strategies so that the level of anxiety is mild. Emotional support affects improving the quality of sleep of people at risk during the Covid-19 pandemic, by increasing psychological well-being, independence in daily functional activities, perceptions of positive health, and increasing the ability of people at risk to take advantage of the surrounding environment in dealing with the Covid- 19.

CONCLUSION

The level of anxiety of people at risk in facing the Covid-19 outbreak is directly affected by emotional support (path coefficient of 0.516 and statistical T value 8.289), and information support about Covid-19 with a path coefficient of 0.286 and statistical T value 3.868. Instrumental support has an indirect effect on anxiety (significance probability (P) 0.385> 0.05). The findings in this study are that social support (emotional and informational) can reduce the level of anxiety of people at risk of Covid-19 during the pandemic.

When people are at risk of facing the Covid-19 outbreak, social support helps improve people's ability to the interpretation of stressors during the pandemic properly, and utilize the resources used in solving problems, and good coping efforts, so that the level of anxiety during the pandemic decreased.

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