ORIGINAL ARTICLE

Test-retest Reliability of the Fear COVID-19 Scale: A Pilot Study

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ARTICLE INFORMATION

Article history
Received December 16, 2021
Revised December 22, 2021
Accepted January 13, 2022

Keywords
Test-retest reliability
Coronavirus
Covid-19

ABSTRACT

Introduction: *the context of the study The new coronavirus COVID-19 is a pandemic disease that currently attacks all countries, including Indonesia, where the number of people who have died in 7.169 cases and those confirmed positive are 165.887 cases. The increasing number of COVID-19 cases in Indonesia has heightened the anxiety and fear experienced by everyone.* ***Objectives:*** *The main objective of this study is to analyse the psychometric properties of the Indonesian translation version of the COVID-19 Fear Scale (FCV-19S) using a sample population in Indonesia.* ***Methods:*** *This study is a cross-sectional instrumental study. The method in this study uses the convenience sampling method.* ***Results:*** *This result showed good internal consistency with the value of Cronbach's alpha was 0.87.* ***Conclusion:*** *This study indicated good internal consistency. Future research to evaluate the correlation between other variables. This study could be applied to the Indonesian population for screening of fear of Covid-19 during the pandemic.*

Jurnal Keperawatan is a peer-reviewed journal published by the School of Nursing at the Faculty of Health Science, University of Muhammadiyah Malang (UMM), and affiliated with the Indonesia National Nurse Association (INNA) of Malang.

Website: http://ejournal.umm.ac.id/index.php/keperawatan
E-mail: journal.keperawatan@umm.ac.id

1. Introduction

This COVID-19 pandemic first appeared in December 2019 in China, involving many people with respiratory and non-respiratory symptoms (Rothan & Byrareddy, 2020). The World Health Organization states that the current state of affairs is soon an urgent matter of concern (Wu & McGoogan, 2020). Initially, the Indonesian government was unaware of the dangers of the COVID-19 virus. Still, over time, the opening of access in and out of airports and ports in Indonesia spread this virus rapidly in Indonesia (*COVID-19 Pandemic in Indonesia*, 2020). The COVID-19 pandemic in Indonesia is part of the ongoing coronavirus disease pandemic 2019 (COVID-19) worldwide. The disease is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Ahn et al., 2020; Gorbalenya et al., 2020; Harrison et al., 2020). A positive case of COVID-19 in Indonesia was first detected on March 2, 2020, when two people were confirmed to be infected by a Japanese national (*Indonesia confirms first cases of coronavirus*; Ratcliffe, 2020). As of April 9, the pandemic has spread to 34 provinces, with DKI Jakarta, East Java, and Central Java as the most exposed provinces. As of September 7, 2020, Indonesia has reported 196,989 positive cases, the second-most in Southeast Asia (*COVID-19 pandemic in Southeast Asia*, 2020) after the Philippines (*COVID-19 Pandemic in the Philippines*, 2020). Indonesia is the third-largest in Asia, with 8,130 deaths in terms of mortality (UNICEF, 2021). However, the mortality rate is estimated to be much higher than the data reported because there are no death cases with acute COVID-19 symptoms that have not been confirmed or tested. Meanwhile, it was announced that 140,652 people had recovered, leaving 48,207 cases currently being treated.

The rapid spread of the virus in Indonesia has closed all public services and facilities such as offices, shops, malls, tourist attractions, and universities; they have been locked down for

P- ISSN: 2086-3071 | E-ISSN: 2443-0900

several weeks, resulting in a decline in the economy and business in Indonesia, which has a significant impact on Public. This has resulted in psychological changes, especially fear, depression, anxiety, and tremendous stress on Indonesian society. The need to measure fear of COVID-19 is necessary so that appropriate interventions are carried out. The COVID-19 fear scale (FCV-19S) has been developed by Ahorsu and colleagues (Ahorsu et al., 2020). The scale consists of 7 items that are easy and fast to use in measuring fear of COVID-19. This scale has been successfully developed and validated in several countries in various languages. Therefore, to assess the fear of facing COVID-19, we immediately translated the FCV-19S scale into Indonesian (FCV-19S-I) by validating the questionnaire.

2. Methods

This study was a cross-sectional sample; participants aged more than 18 years in Indonesia were recruited. This research will be registered to the ethics committee in Indonesia first. The research sample included at least 30 participants aging ^{3} 18 years. All participant is screened for inclusion criteria. The Inclusion Criteria in this study were participants who agreed to participate in this research, aged ≥ 18 years old, able to speak Indonesian, willing to participate after providing informed consent, possess the required demographic characteristics, willing to self-report their demographics. The exclusion criteria in this study where participants do not have a psychiatric disease.

The instrument included a demographic recording, Fear of COVID-19 Scale (FCV-19S), for the survey. The questionnaire will be conducted psychometric properties test. The questionnaire is already getting permission from the original author.

Demographic data include age, gender, education level, city, marital status, occupation, marital status, employment, Monthly income, religion.

The FCV-19S questionnaire is a scale used to measure a person's level of fear of COVID-19. (Ahorsu et al., 2020). This questionnaire consists of 7 items and scores between 1 and 5, from strongly disagree to agree, respectively strongly. The total score is by adding up all the item scores between 7 and 35. High scores indicate a great fear of COVID-19. This scale has solid psychometric properties, including high internal consistency with a Cronbach alpha value of 0.82.

Statistical analysis is carried out using SPSS version 23.0 to analyze the data. Descriptive statistics such as mean, standard deviation, range, and frequency distribution describe the participants' demographic data (Mishra et al., 2019). Pearson product correlation will be used in this study. Our study uses SPSS version 23. The descriptive statistics used to analyze the characteristic demographic data in this study are frequency, percentage, mean, standard deviation, skewness, kurtosis, and response distribution of each item. Cronbach's alpha was also used to assess internal consistency, inter-item relationships, and total corrected items. a Cronbach's alpha value greater than 0.07 indicates acceptable reliability (DeVellis, 2016). The relationship between items and the total items shows the relationship between items if the value is between 0.30-0.70.

3. Results and Discussion

Table 1, the original English version (Ahorsu et al., 2020), and the Indonesian version of the fear of COVID-19 are shown in Table 1. Table 2 shows the demographic characteristics. The dataset includes around 32 participants' complete responses. The mean age in this study was 37.22, with a standard deviation of 6.74. Most of participant in this study were female (75 %), Magister (11 %), Married (23 %), more than 4 million (11 %), employed (29 %), Muslim (31 %), East Java (23 %).

The mean and Standard deviation each item was 3.28 (1.19), 3.03 (1.06), 2.00 (0.95), 2.75 (0.98), 2.31 (1.06), 2.09 (1.06), 2.06 (1.13), respectively. The skewness value was between -0.59 and 0.86, and kurtosis was from -0.82 to 0.18. Based on Byrne and Campbell explained that normal distribution could be reached if the values of skewness and kurtosis were from -1.5 and 1.5 (Byrne & Campbell, 1999). The internal consistency of the Indonesian version of FCV-19S was good, around 0.87.

Based on the table about participants' response distribution, most of the participants checked firmly disagreed with statements number three, item six, and item number seven. Table 5 showed the inter-item Pearson's correlation matrix ranged from 0.19 to 0.80 and corrected item-total correlations ranged from 0.49 to 0.77, which means showed that the Indonesia version of FCV-19S has adequate internal consistency (Table 5).

Table 1 The original English version and the Indonesian version of the FCV-19S

Item	The original English version	The Indonesian version
Item 1	I am most afraid of Corona	Saya sangat khawatir dengan Corona
Item 2	It makes me uncomfortable to think about Corona	Saya merasa tidak nyaman ketika berpikir tentang Corona
Item 3	My hands become clammy when I think about Corona	Tangan saya menjadi berkeringat dingin, saat memikirkan tentang Corona
Item 4	I am afraid of losing my life because of Corona	Saya takut akan meninggal karena corona
Item 5	When I watching news and stories about Corona on social media, I become nervous or anxious.	Ketika melihat berita tentang corona di media sosial, saya menjadi gelisah dan cemas
Item 6	I cannot sleep because I'm worrying about getting Corona	Saya tidak dapat tidur karena khawatir akan terkena Corona
Item 7	My heart races or palpitates when I think about getting Corona	Detak jantung/denyut nadi saya meningkat ketika saya berpikir akan terkena Corona.

Table 2 Demographic Characteristics

Characteristics	Mean (SD)	Frequency	%
Age	37.22 (6.74)		
Gender			
Male		8	25
Female		24	75
Education level			
No education		1	3
Senior high school		3	9
Diploma		4	13
Bachelor		9	28
Magister		11	34
Doctoral		4	13
Marital status			
Single		9	28
Married		23	72
Income (IDR)			
< 1 Juta		7	22
1 – 1.9 Juta		1	3
2 – 2.9 Juta		4	13
3 – 3.9 Juta		9	28
> 4 Juta		11	34
Employment			
Unemployed		2	6
Employed		29	91
Student		1	3
Religion			

Non-Muslim	1	3
Muslim	31	97
Region		
West Java	3	9
Central Java	3	9
East Java	23	72
Outside Java	3	9

Table 3 Descriptive details for the FCV-19S

Item	Mean (SD)	Skewness	Kurtosis	Cronbach alpha when item deleted
Item 1	3.28 (1.19)	-0.59	-0.37	0.87
Item 2	3.03 (1.06)	-0.07	-0.76	0.87
Item 3	2.00 (0.95)	0.48	-0.82	0.85
Item 4	2.75 (0.98)	0.54	0.18	0.84
Item 5	2.31 (1.06)	0.36	-0.29	0.83
Item 6	2.09 (1.06)	0.67	0.07	0.84
Item 7	2.06 (1.13)	0.86	-0.05	085

Table 4 Response distribution (%)

Item	Response options				
	1	2	3	4	5
Item 1	12.5	9.4	28.1	37.5	12.5
Item 2	6.3	28.1	28.1	31.3	6.3
Item 3	37.5	31.3	25.0	6.4	0
Item 4	6.3	37.5	37.5	12.5	6.3
Item 5	28.1	25.0	37.5	6.3	3.1
Item 6	37.5	25.0	31.3	3.1	3.1
Item 7	40.6	28.1	18.8	9.4	3.1

Table 5 Inter-item Pearson's correlation matrix and corrected item-total correlations

Item	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Corrected item-total correlations
Item 1	1.000							0.52
Item 2	0.45	1.000						0.49
Item 3	0.45	0.19	1.000					0.62
Item 4	0.61	0.44	0.52	1.000				0.73
Item 5	0.41	0.65	0.48	0.54	1.000			0.77
Item 6	0.34	0.31	0.64	0.55	0.75	1.000		0.76
Item 7	0.22	0.27	0.57	0.59	0.60	0.80	1.000	0.66

Our study uses a sample of adults in Indonesia; this study aims to evaluate the psychometric properties of the Indonesian version of FCV-19S to ensure it is a reliable and valid measure that can be used to assess the severity of COVID-19 fear among the adult population in Indonesia. The findings indicate that the Indonesian FCV-19S has a unidimensional structure and good internal consistency.

Evaluate fear Covid-19, the scale of Fear of Covid-19 was used and developed by (Ahorsu et al., 2020). Different languages translated the questionnaire, and the result showed adequate validity and reliability, such as from Argentina (Caycho-Rodríguez et al., 2020), Arab (Alyami et al.), Israel (Bitan et al., 2020), Indian (Doshi et al., 2020), Turkish (Haktanir et al., 2020), Bangla (Sakib, Bhuiyan, Hossain, Al Mamun, Hosen, Abdullah, Sarker, Mohiuddin, Rayhan, & Hossain, 2020), Spanish (Martínez-Lorca et al., 2020), Japan (Masuyama et al., 2020), US (Perz et al., 2020), and Malay (Pang et al., 2020). Our result is almost similar with to previous study that used the FCV-19S. the value of internal consistency in our study of the Indonesian version FCV-19S was 0.87, which is this result higher than the original study (α=0.82) (Ahorsu et al., 2020), and the same as with the Italian version (α= 0.87) (Soraci et al., 2020), Turkish version (α= 0.85) (Satici et al., 2020), Arab version (Al-Shannaq et al., 2021),

Item numbers three, six, and seven showed lower mean values than other items; it is shown that participants tended to have strongly disagreed with three statements. The statement of Item three was, "My hands become clammy when I think about Corona." Item number six was "I cannot sleep because I'm worrying about getting Corona," and item number seven was "My heart races or palpitates when I think about getting Corona." These results are consistent with the previous study from the Italian population (Soraci et al., 2020), Bangladeshi (Sakib, Bhuiyan, Hossain, Al Mamun, Hosen, Abdullah, Sarker, Mohiuddin, Rayhan, Hossain, et al., 2020), and Turkish populations (Satici et al., 2020). Statements number 3, 6, and statement number 7 have the same meaning because all three relate to somatic aspects related to sweaty hands, lack of sleep, and heart palpitations.

The other statement items from FCV-19S are item number 1 and item number 2. These two items have almost the same meaning, compared to other items, because item number 1 and number 2 are common questions related to the fear of covid-19, or even if thinking about COVID-19 is uncomfortable. This item is different from other items, which explain aspects related to the physical aspect of item number 3, item 6 and item number 7, item 4 related to loss of life, and item 5, which is being anxious when you see news about Covid-19.

Overall, our result showed good internal consistency with the value of Cronbach's alpha was 0.87. The future study should also evaluate the correlation between other variables, such as fear, anxiety, and depression. And also, the practice of health protocol is protective, for example, hand washing, keeping social distancing, and always using masks. Our study had some limitations because this study used a pilot study; that's why our participants were too limited. However, we will continue to recruit more participants in the following project research.

4. Conclusion

This study showed good internal consistency with the value of Cronbach's alpha was 0.87. The future study should also evaluate the correlation between other variables, such as fear, anxiety, and depression. And also, the practice of health protocol is protective, for example, hand washing, keeping social distancing, and always using masks. We hope this study could be applied to Indonesian populations to screen fear of Covid-19 during the pandemic.

Acknowledgments

This manuscript was supported by Faculty of Health Sciences.

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