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Original Article

Predicting Help Seeking Behavior related to COVID-19 among Indonesian Adults

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Abstract

Indonesia has recorded the highest number of cases of COVID-19 patients in Southeast Asia. COVID-19 task forces in Indonesia were urged to plan an effective method for preventing COVID-19. The aim of this study was to determine the effect of demographic characteristics, COVID-19-like symptoms, and COVID-19 knowledge, as the predictors of help seeking behavior among Indonesian adults. The extended health belief model (EHBM) was used as the conceptual framework. The data were collected through online survey of 500 of Indonesian adults. Correlation analysis showed that age was significantly associated with help seeking behavior (r=.10, *p*=.03). Further results showed that EHBM factors such as health motivation (r=.24, *p*=.001), cues to action (r=.16, *p*=.000), locus of control, (r=.15, *p*=.000), and self-efficacy (r=.13, *p*=.000) were significantly associated with help seeking behavior. The result of hierarchical regression analysis was significant; revealing that in first model, age impacted help seeking behavior (β=2.86, *p*=. 03). In second model, along with previous variables, COVID-19-like symptoms were statistically significant to help seeking behavior (β=-3.61, *p*=. 002). In the last model, locus of control (β=. 38, *p*=. 001) and health motivation (β=1.25, *p*=.000) were statistically significant to help seeking behavior. The results contribute to theoretical advances in our understanding of help-seeking predictive factors and promoting the improvement of health care service. Furthermore, an educational model for the community could be developed with a focus on strengthening individual's locus of control, health motivation, and increasing the knowledge of the COVID-19-like symptoms.

In the early period of corona virus disease (known as COVID-19) outbreak, on 16th March 2020, 167,500 cases were documented, while many cases had likely gone undiagnosed and the disease had killed over 6,600 people (Andersen et al., 2020). The World Health Organization (WHO) announced on 6th April, 2020 that more than 62,955 people had died and the pandemic had spread in 209 countries (WHO, 2020a). According to the update data on 4th May 2020 from the Centre for Systems Science and Engineering (2020) at Johns Hopkins University there were more than 3.5 million cases confirmed and 24,4295 deaths around the world.

Based on a significant increase in the number of cases in the world, including in Indonesia on 3rd April 2020 (Hutt, 2020; Indonesian Ministry of Communication and Informatics, 2020), the WHO stated the importance for governments in Southeast Asia to aggressively strengthen the efforts to prevent this pandemic (WHO, 2020b). In response to the WHO directive above, Bangladesh, India, Myanmar, Nepal, Sri Lanka, and Thailand started to lockdown their areas (WHO, 2020c), and Indonesia recommended measure of social distancing (Indonesian Ministry of Health, 2020).

COVID-19 prevention and control can be done successfully by adopting appropriate behavior changes. In this case, hygiene prevention such as using mask and washing hands is needed to prevent the effect of COVID-19 (Purnama & Susanna,

2020). Experts also believe that quarantine and isolation measures help prevent the spread of communicable diseases (Parmet & Sinha, 2020). Therefore, the people's awareness of the disease, the severity and susceptibility of the disease, and practices and beliefs about their health have a very significant effect on disease prevention and control in the community (Glanz et al., 2008).

COVID-19 prevention and control are very much dependent on health behavior, especially in individual decision making (Baggio, 2020). Weston et al. (2018) suggested when we prevent and control contagious infection pandemic, individual health behavior is very important, not only for the individual, but also for the society as a whole. Help seeking can be defined as a psychosocial form of health behavior (Nudelman & Shiloh, 2015), where one discloses a problem to get external help. In contrast to health behaviors, which are commonly related to physical activity, help seeking depends on an external source (Nagai, 2015). There are multiple and expanding sources of help, which can be categorized in different ways, including formal, informal, and self-help. Formal help seeking is seeking assistance from professional who have a legitimate and recognized professional role in providing relevant advice, support, and/or treatment (Rickwood & Thomas, 2012). Friends and family as well as religious leaders, or other non-health professionals usually offer informal help. It can also include self-help with other people with similar problems. The help seeking behavior used in this study aimed to assess intentions to seek help from different sources related to personal problem and experience (Wilson et al., 2005).

Early studies have found that during COVID-19 pandemic people from adult population suffered from stress, insomnia, anxiety, depression, somatization, obsessive-compulsive syndrome (Zhang & Ma, 2020). The increased potential of mental disorders might not always lead to help seeking behavior. Literature review indicates that the biggest barriers were trust in professional help, poor mental health literacy, preference of self-reliance, and perceived stigma (Gulliver et al., 2010). Infection disease, like COVID-19, is one of the most common conditions associated with stigma. The world's long history facing stigmatization over infectious disease was well documented from previous studies about H1N1 pandemic in 2009 and most recent MERS-CoV in 2012 (Perry & Donini-Lenhoff, 2010; Farag et al., 2016). According to Williams et al. (2011) stigma creates a distinction between the sick and the rest of the society members, thus in turn, prevents them to act on their instinctive response to seek curative treatment. Therefore, it is important to add COVID-19 knowledge and COVID-19-like symptoms in predicting help seeking behavior.

Some demographic factors, such as age, gender, marital status, education, living conditions, and socio-economic were found to be related to help-seeking behavior (Boerema et al., 2016). The previous study on the spread of influenza (Laskowski et al., 2011), SARS (Lau et al., 2006), Swine Flu (Van Cauteren et al., 2012), suggested that the demographic variables should be considered as important factors in pandemic situations.

One of the appropriate models for learning individual health beliefs and infection prevention behavior is the health belief model (HBM). This model was initially developed to explain why people failed to participate in a disease prevention and detection (Glanz et al., 2008). This model evolved gradually and was extended to help in understanding communicable and non-communicable diseases prevention behaviors, to learn about people's responses to symptoms and their attitudes toward diagnosed diseases or to find out what happens when patients have very few symptoms or without any symptoms, especially how they adhere to medical advice (Champion & Skinner, 2008). The key constructs of HBM include perceived susceptibility, severity, barriers, benefits, and cues to action (Glanz et al., 2008).

The extension of this model is called Extended Health Belief Model (EHBM), which aims at strengthening the explanatory power, in which most of the variables added only apply to certain research topics (Huang et al., 2016). The extension variables required must correspond to the specific health behavior domains being investigated because individual determinants are only directly related to healthy behavior and no mediating effect exists between the extension variables (Orji et al., 2012). Hence, self-efficacy, health motivation and locus of control were added in this study. This addition aims at exploring comprehensively factors that influence help seeking behavior of a person in the communicable disease (Glanz et al., 2008). The finding from previous study showed that self-efficacy and health motivation were the predictors of behavior changes related to adherence in social distancing in communicable disease (Williams et al.,

2015). Locus of control was a vital psychological attribute in the global pandemic COVID-19 because it can predict information seeking behavior and perceived high risk to be infected (Sigurvinsdottir et al., 2020) Other factors such as demographic characteristics and COVID-19-like symptoms can influence knowledge, belief, and preventive health behavior of an individual (Siddiqui et al., 2016).

A study on knowledge, health beliefs and health behavior that are related to COVID-19 pandemic is very important to be conducted in Indonesia. Many factors are believed to worsen the condition of COVID-19 outbreak in Indonesia. A poor health service for a large number of population could also worsen the COVID-19 pandemic in Indonesia, as showed by the ratio of hospital beds in Jakarta at an outbreak epicenter in 2020 which was 1.73 to 1000 patients (The Provincial Government of DKI Jakarta, 2019).

Hence, the aim of this study was to determine demographic characteristics, COVID-19-like symptoms, COVID-19 knowledge, and EHBM was used as the framework for investigating the predictors of help seeking behavior in Indonesian adults. This study will help the COVID-19 task forces to plan an effective method for controlling and preventing COVID-19 in Indonesia. Furthermore, the research questions of this study were as follows:

1. Are the demographic characteristics, COVID-19-like symptoms, COVID-19 knowledge, and EHBM predictors of help seeking behavior in Indonesian adults?
2. Which of these is the strongest predictor of help seeking behavior in Indonesian adults?

Method

Participants

The cross-sectional study was conducted via an online survey with Google form between March and April 2020. The form was then distributed through WhatsApp and email platform. Majority of adults in Indonesia have this application on their mobile device (Indonesian Ministry of Communication and Informatics, 2020). The population of this study consisted of Indonesian adults. The participants were Indonesian adults between 21 and 65 years of age and only those who could speak and read the Indonesian language were selected for the sample. The requirements mentioned in the introduction of the survey included demographic characteristics to ensure that the inclusion criteria were met. The questionnaires used Indonesian language to define statement and communicate to participant. As known, Indonesian language is the main language and was a compulsory subject in all education level in Indonesia (Indonesian Ministry of Education and Culture, 2020). In this regard, all participants in this study were students or adults who had completed their study at least at a senior high school (94.8%), therefore they able to understand the contents of the questionnaires. The exclusion criteria were error inputs to the survey and refusal to give informed consent. The minimum required sample size was 264 estimated using a priori sample size formula for hierarchical regression analysis by Soper (2018) to achieve effect size .15, probability level .01 and power .95 with 17 predictors. Survey link were sent to more than 700 people. There were 585 participants completed and returned the questionnaires, but only 500 of them were used in this study because the remaining of 85 participants were under 21 years old. Approval was obtained from the Research Ethics Commission of Research Institute and Community Service at Ganesha University of Education, Bali on 2020 (140/UN48.16/DT/2020) prior to recruitment. Participation was voluntary and written informed consent was obtained. To ensure the reliability of online answer, each participant was only allowed to submit the survey one time, every section had different instructions. The survey required participants to fill out each question to completion. This study also provided a consent option to declare willingness to participate and openness to resign at any time. This procedure was a guarantee of the participant's right to participate or not in this research.

Instruments

Demographic characteristic and COVID-19-like symptoms were measured using personal information sheet. COVID-19 knowledge was measured using a questionnaire written by the researchers. The EHBM and help seeking behavior were measured using standard self-report scales (see Table 1). The scales were translated into Indonesian by the researchers. The back-translation technique was used to achieve a valid Indonesian translation, which was compared with the original English version for discrepancies. The translated version was submitted to an expert panel to evaluate the validity of its content. The panel consisted of three researchers and one psychologist with research expertise in health psychologist and a sworn translator. The investigators approved the content

Table 1

EHBM and Help Seeking Behavior Scales

Instruments	Total items	Likert scale	Cronbach's alpha coefficient
Perceived susceptibility (Champion,1984)	6 items	5-point Likert from scale 1 (very unlikely) to 5 (very likely)	.82
Perceived severity *(*Champion, 1984)	12 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.88
Perceived benefits *(*Champion, 1984)	5 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.88
Perceived barriers *(*Champion, 1984)	8 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.75
Cues to action (Gutierrez & Long, 2011)	1 item	5-point Likert scale from 1 (not very well) to 5 (very well)	
Self-efficacy (Gutierrez & Long, 2011)	4 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.74
Locus of control (Gutierrez & Long, 2011)	11 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.62
Health motivation (Avci & Altinel, 2018)	3 items	5-point Likert scale from 1 (very unlikely) to 5 (very likely)	.70
Help seeking behavior questionnaire was an adaptation from General Help Seeking Questionnaire (Wilson et al., 2005)	20 items related to help sources as possible answers	7-point Likert scale from 1 (extremely unlikely) to7 (extremely likely)	.82

validity of the scales through qualitative methods by filled out the checklist and all the translation of items in scales was improved until saturation was achieved. The reliability of the scales was assessed using Cronbach's alpha. The Cronbach alpha were .75 for perceived barriers sub-scale, .88 for perceived susceptibility sub-scale, .82 for perceived severity sub-scale, .88 for perceived benefit sub-scale, .74 for self-efficacy scale, .62 for locus of control scale, .70 for health motivation scale. The reliability of the COVID-19 knowledge scale was .56. This study considers that Cronbach's alpha of greater than .50 is accepted and considered as acceptable in science education (Field, 2009; Taber, 2017).

Demographic Characteristics

Information on demographic characteristics included age, sex, marital status, education level, salary, housing condition, living with a susceptible group, and the number of people living together.

COVID-19-Like Symptoms

COVID-19-like symptoms was measured using one question, i.e., "do you show the following symptoms?" This question can be answered with more than one response. The options are coughing, fever, breathing difficulty, and no symptom at all. There were three symptoms of COVID-19-like symptoms measured in this research. The scores of the participants' answers were classified by an interval from 0 (no symptoms appeared) to 3 (three symptoms appeared).

COVID-19 Knowledge

There were ten items to measure COVID-19 knowledge, covering basic information, symptom, risk factor, prevention, and steps to evade infection, each having two items. These items were written based on the information from the official website of WHO on COVID-19. This questionnaire has a true false format. A high score indicated good COVID-19 knowledge. The result of a try-out of this questionnaire with 30 subjects shows that 5 items failed, namely one item from each of basic information, risk factor, and prevention and 2 items from steps of prevention. The total scores ranged between 0 to 5. Product Moment correlation coefficient was employed to measure content validity of the scale. The Product Moment

coefficient correlations of the five remaining items were .55, .52, .57, .54, and .65.

The EHBM Scale

The EHBM scale contains the factors from the HBM scale including perceived susceptibility, severity, benefits, barriers, and cues to action while the extension includes three factors, i.e., self-efficacy, locus of control, and health motivation. The overall Cronbach's alpha coefficient for this scale is .82

Statistical Analysis

The data from this study were analyzed using SPSS software (version 24). Means, percentage, categorization, and standard deviations were determined for descriptive statistics. Pearson's correlation coefficients were used to identify the correlations among demographic characteristics, COVID-19-like symptoms, COVID-19 knowledge, EHBM factors, and help seeking behavior. Predictors of help seeking behavior were identified by hierarchical regression analysis. Hierarchical regression analysis refers to the process of adding or removing predictor variables from the regression model in steps to determine statistically which variables have the most predictive power (Cohen et al., 2003). The order of the hierarchical regression analysis was arranged based on Lankau and Scandura (2002) where the first model usually contains demographic characteristics. Furthermore, the next model includes important variables that are known in this study area and added with variables of interest. Five basic assumptions of linearity, homogeneity, autocorrelation, multi-collinearity, and heteroskedasticity test were employed prior to regression analysis. An alpha level of .05 was used to determine statistical significance in all statistical tests.

Results

The demographic characteristics of the 500 participants (Table 2) were as follows. Most of the respondents were 30-45 years old (57.8%), female (62.8%), and married (61.4%). Notably, 47.6% were bachelor's degree graduates, 36% had a salary more than 5 million IDR, 70.6% lived in a private house, 50% did not live with a COVID-19 susceptible group, and 44.2% lived together with 4-6 persons. About 84% participants did not have COVID-19-like symptoms (Table 2). On the other hand, most of the categorization of COVID-19 knowledge, EHBM, and help seeking behavior of the 500 participants were moderate (Table 2).

Table 2

Demographic Characteristics of Participants and Categorization of COVID-19-Like Symptoms, COVID-19 Knowledge, EHBM, and Help Seeking Behavior

Variable	Categorization	n	Percentage (%)
Age	< 30 years old	166	33.2
	30-45 years old	289	57.8
	45-60 years old	41	8.2
	> 60 years old	4	.8
Sex	Male	186	37.2
	Female	314	62.8
Marital status	Single	173	34.6
	Married	307	61.4
	Divorce	20	4
Education level	Elementary school	2	.4
	Junior high school	4	.8
	Senior high school	78	15.6
	Bachelor degree	238	47.6
	Master degree	138	27.6
	Doctoral Degree	20	4
	Others	20	4

Table 2 *(Continued)*

Variable	Categorization	n	Percentage (%)
Salary	No salary	57	11.4
	< 1 million IDR	38	7.6
	1 million IDR-3 million IDR	92	18.4
	3 million IDR-5 million IDR	133	26.6
	> 5 million IDR	180	36.0
Housing condition	Private house	353	70.6
	Rented house	55	11
	Boarding room	39	7.8
	Apartment	17	3.4
	Others	36	7.2
Living with a COVID-19 susceptible group	Yes	207	41.4
	No	250	50
	Not sure	43	8.6
Number of people living together	Nothing	39	7.8
	1-3 person	195	39
	4-6 person	221	44.2
	> 6 person	45	9
COVID-19-like symptoms	No symptom	420	84
	1 symptom	61	12.2
	2 symptoms	17	3.4
	3 symptoms	2	.4
COVID-19 knowledge	Low	69	13.8
	Moderate	331	66.2
	High	100	20
EHBM factors			
Perceived severity	Low	91	16.2
	Moderate	388	77.6
	High	21	4.2
Perceived susceptibility	Low	67	13.4
	Moderate	332	66.4
	High	101	20.2
Perceived benefits	Low	50	10
	Moderate	266	53.2
	High	184	36.8
Perceived barriers	Low	58	11.6
	Average	351	70.2
	High	91	18.2
Cues to action	Low	14	2.8
	Moderate	354	70.8
	High	132	26.4
Self-efficacy	Low	52	10.4
	Moderate	296	59.2
	High	152	30.4
Health motivation	Low	46	9.2
	Moderate	360	72
	High	94	18.8
Help seeking behavior	Low	81	16.2
	Moderate	340	68
	High	79	15.8

The analysis of descriptive statistics can be seen on Table 3 and the analysis of correlation for study variables can be seen on Table 4. The Mean-Standard deviation classification method was used to determine the categorization of all variables. The results were then classified as low-moderate-and high scores. The mean score for COVID-19 knowledge (Table 3) was 1.61 (SD 0.98). The result on Table 4 showed that the demographic characteristics revealed that only age was significantly associated with help seeking behavior (p<.01). In addition, a COVID-19-like symptom was significantly associated with help seeking behavior (p<.01) and COVID-19 knowledge was not significantly associated with help seeking behavior (p>.05). The EHBM factors revealed that perceived benefits, cues to action, self-efficacy, locus of control, and health motivation were associated with help seeking behavior (p<.01).

Hierarchical regression analysis was employed in this study, with enter method to compute parameter in the model. The results of the hierarchical regression predicting help seeking behavior from demographic characteristics, COVID-19-like symptoms, COVID-19 knowledge, and EHBM are reported in Table 5. All these factors have the VIF fewer than 5 if included in the hierarchical regression equation. If the VIF value less than 5, then it implies that the associated regression coefficients are strongly estimated because they are unconfined from multi-collinearity (Montgomery, 2001). Based on the analysis, the model accounted for 10.2% (.102) of the variance in participants' help seeking behavior. The results of step one indicated that the variance accounted for (R2) with the first eight predictors from demographic characteristics equaled 0.014 (adjusted R2=-.00), which was not significantly different (p>.05). Next, the COVID-19-like symptom was included in the regression equation. The change in variance accounted for (R2 change) was equal to .011, which was statistically significant different in variance accounted for over the step one (p<.01). Furthermore, COVID-19 knowledge was included in the regression equation. The change in variance accounted for (R2 change) was equal to .001, which was not statistically significant difference in variance accounted for over the step two (p>.05). In step four, EHBM factors were entered into the regression equation. The change in variance accounted for (R2 change) equaled to .076, which was a statistically significant increase in variance accounted above the variability contributed by the previous predictor variables entered in step three (p<.01). Two of the EHBM factors, locus of control and health motivation, were statistically significant (p<.01).

Table 3

Descriptive Statistics for Study Variables

Variable	Range	M	SD
1. COVID-19 knowledge	0-5	1.61	.98
2. Perceived severity	12-60	29.79	10.27
3. Perceived susceptibility	6-30	15.22	4.96
4. Perceived benefits	5-25	22.31	3.21
5. Perceived barriers	8-40	15.31	4.98
6. Cues to action	1-5	3.97	0.81
7. Self-efficacy	4-20	16.67	2.64
8. Locus of control	19-55	36.6	5.34
9. Health motivation	3-15	9.96	2.67

Note. n=500

Table 4

Correlations for study variables

Variables	Help Seeking Behav.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18
1. Age	.10*	-																
2. Gender	.00	-.12**	-															
3. Education Level	.02	.16**	.06	-														
4. Marital status	.05	.53**	-.01	.15**	-													
5. Housing condition	.00	-.11**	-.02	-.02	-.11**	-												
6. Number of people living together	.06	.07	.04	-.12**	.11**	-.20**	-											
7. Salary	.00	.35**	-.14**	.33**	.31**	-.05	-.10**	-										
8. Living with susceptible group	-.01	-.04	.02	-.10**	-.03	.04	-.22**	.01	-									
9. COVID-16-Like symptoms	-.11**	-.05	-.07	.04	-.10**	.05	.03	-.01	-.08	-								
10. COVID-Knowledge	-.04	-.06	.02	.09	.03	.01	-.07	.06	-.11	.03	-							
11. Per. Susceptibility	.01	-.03	-.14	.19**	-.04	.06	-.07	.19**	-.16**	.17**	.13**	-						
12. Per. Severity	.03	-.20**	-.02	-.12	-.17**	.02	.06	-.14**	.03	.07	-.06	.23**	-					
13. Per. Benefits	.14**	.03	.14	.04	.06	-.02	.06	-.06	-.01	-.10**	-.11**	-.20**	-.10**	-				
14. Per. Barriers	-.05	-.10	-.15**	-.03	-.15**	-.02	-.01	-.04	.02	.10**	.05	.20**	.33**	-.37**	-			
15. Cues to action	.16**	.12**	.02**	.10**	.08**	-.02	.08*	.07	.02	-.08**	-.10**	-.15**	-.17**	.36**	-.41**	-		
16. Locus of Control	.15**	-.09**	-.04	-.09**	-.06	-.04	-.03	-.15**	.01	.03	-.19**	-.01**	.24**	.21**	.14**	.13**		
17. Self-efficacy	.13**	.05	.05	.05	.09**	-.05	.14**	-.04	-.03	-.11**	-.13**	-.14**	-.07**	.58**	-.38**	.42**	-	
18. Health Motivation	.24**	.11**	.01	.06	.06	-.10**	.08**	.06	.05	-.14**	-.16**	-.16**	-.05	.27**	-.26**	.42**	.38**	-

Note. Per.: Perceived, Behav.: Behavior, $^{*}p < .05$. $^{**}p < .01$.

Table 5

Hierarchical Regression Analysis Evaluating Predictors of Help Seeking Behavior among Indonesian Adults related COVID-19 Pandemic

Variable	R^2	Adjusted R^2	R^2 change	Sig. F change	SE	B	95% CI		*p*
							LL	*UL*	
Step 1	.014	.002	.014	.544					
Age					1.48	2.86	-,04	5,77	<.05
Sex					1.60	.16	-2,98	3,31	.91
Marital status					1.68	-.02	-3,34	3,28	.98
Education level					.84	.41	-1,25	2,07	.62
Salary					.65	-.46	-1,74	,81	.48
Housing condition					.64	.30	-0,96	1,57	.63
Living with a susceptible Group					1.25	.19	-2,26	2,65	.87
Number of people living Together					1.06	1.24	-,84	3,32	.24
Step 2	.025	.007	.011	.<.01					
COVID-19-like Symptoms					1.51	-3.61	-6,58	-,63	<.01
Step 3	.026	.006	.001	.491					
COVID-19					.775	-.53	-2,05	,98	,49
knowledge									
Step 4	.102	.068	.076	<.01					
Perceived severity					.08	.038	-,12	,19	.63
Perceived susceptibility					.16	.238	-,09	,56	.15
Perceived benefits					.29	.383	-,19	,95	.19
Perceived barriers					.18	.028	-,33	,39	.87
Cues to action					1.10	1.10	-1,06	3,28	.31
Self-efficacy					.37	-.28	-1,01	,44	.44
Locus of control					.15	.38	,07	,68	<.01
Health motivation					.31	1.25	,63	1,88	<.01

Note. n=500, CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Discussion

The aims of this study were to determine whether the demographic characteristics, COVID-19-like symptoms, COVID-19 knowledge, and EHBM could be predictors of help seeking behavior in Indonesian adults. Furthermore, this study tried to reveal the strongest influential predictor of help seeking behavior related to COVID-19 on Indonesian adults.

Results from the regression analysis indicated that 10.2% of the total variance in COVID-19's help seeking behavior was accounted for 7.6% explained uniquely by EHBM variables, 1.4% by demographic characteristics, 1.1% by COVID-19-like symptoms, and a further 0.1% by COVID-19 knowledge. The significant predictors in the model were COVID-19-like symptoms and the locus of control and health motivation of the EHBM. Specifically, demographic characteristics and COVID-19 knowledge variables did not uniquely predict COVID-19's help seeking behavior for an Indonesian sample.

The present study result showed that COVID-19-like symptoms were significant predictors in help seeking behavior of Indonesian adults. However, surprisingly COVID-19-like symptoms had a negative statistical correlation with help seeking behavior. This can be explained from various cases of patients who hid their travel histories at the time they sought medical treatments as recently happened in Semarang (Dimas, 2020) and Padang (Tryana, 2020). Many patients under supervision and positive cases had refused to be quarantined in Cianjur (Selamet, 2020). Some deceased COVID-19 patients were refused to be buried in local cemeteries in some regions due to negative stigma attached (Kurniati, 2020). Therefore, people's help seeking behavior would tend to be low if they experienced COVID-19-like symptoms.

Further, related to negative correlation between COVID-19-like symptoms and help seeking behavior was supported by previous research from Djalante et al., (2020). The finding showed that on the early pandemic from January to March 2020, the public needs time to process information before taking steps to protect themselves. Many new foreign terms have been introduced and hard to be understood by ordinary people such as outbreaks, epidemics, and pandemics; physical or social distancing; asymptomatic; comorbid, etc. In this connection, the government is expected to focus more on public education targeting not only people with symptoms similar to COVID-19 but also the ones without the symptoms. People are encouraged to seek help both offline and/or online as a preventive measure even though they do not experience any symptoms. By doing that, anytime they have symptoms similar to COVID-19, they would understand to the next step of seeking help.

Champion and Skinner (2008) suggested adding extension factors to HBM make it more comprehensive in revealing decision-making and health behavior actions. Another study showed that predictors of preventive behaviors in communicable disease were not limited to HBM factors but also included extension factors like locus of control (Paek et al., 2015), health motivation (Fall et al., 2018), and self-efficacy (Tsai et al., 2015). This means that the EHBM is an important framework for the preparation of COVID-19 prevention. The result of extension factors in the EHBM showed that locus of control was a significant predictor of help seeking behavior. Locus of control also had a significant positive correlation with help seeking behavior. This finding is supported by a study done by Sigurvinsdottir et al. (2020) that showed that locus of control was a predictor in health information seeking behavior and perceived high-risk in COVID-19. Another study by Paek et al. (2015) showed that health locus of control was positively related to vaccination intention in communicable disease. Another significant predictor was health motivation. The result of this study was supported by a previous study that showed that health motivation as a strong predictor in social distancing behavior on communicable (Williams et al., 2015).

Furthermore, previous studies in Egypt, Pakistan, and South Korea suggested that the HBM was an adequate model of appraisals of communicable diseases to help understand the predictors of preventative behavior in responses to a health threat (Kamal et al., 2017; Siddiqui et al., 2016; Chang & Lee, 2019). However, surprisingly none of the variables from HBM such as perceived susceptibility, severity, benefits, and barriers were predictors in help seeking behavior in relation to this COVID-19 pandemic in this present study. This can be related to an unpredictable future of

this pandemic that has been worsened by the myth and wrong information, which are often supported by wrong news reports and misunderstanding among the people about health messages (Shimizu, 2020). This situation might affect individual psychological health (Bao et al., 2020), which is not measurable in HBM. This is supported by the literature that states that one criticism of HBM and other traditional health behavioral theories is the absence of effects of emotions on health cognitions and behavior (Diefenbach et al., 2008; McCaul et al., 2007). Therefore, for further research it is necessary to address the illness perception, mental health, and stigma about COVID-19. Furthermore, public health professionals must build messages that enhance the perception of the likelihood and threat of pandemic events to promote preventive action (Scherr et al., 2017).

COVID-19 is a pandemic whose cases up to the present are still on the increase and have caused many deaths. Thus, this study provides the initial data in designing COVID-19 prevention campaign in Indonesia. Another strength of this study was due to the adoption of an integrated theoretical model that has shown efficacy in predicting health behavior, and the use of valid and reliable instruments and a prospective design.

Another finding from this study showed that among all demographic characteristics, age was the only variable that shows a significant association with help seeking behavior. Majority of the ages of respondents in this study ranged from 21-45 years (90%). In this research, the age category was classified as an early adult and middle adult, who are known as a productive group. The relation between age and help seeking behavior, based on this finding, is associated with the access of information sources. One of the external information sources accessed by a younger adult is the internet (Mitchell et al., 2017). Therefore, the present finding showed the use of internet-based information technology improves the younger participants' knowledge about COVID-19.

Topkaya (2015) suggested that the factors, which influence adult decision to seek help for their personal problems, are the availability of psychological services, the belief in the benefits of psychological services, and trusting in the mental health professional. The results exhibited a range of values comparable with previous studies that showed that younger people tend to experience more barriers to seek help from professional sources (Gulliver et al., 2010; Disabato et al., 2018). Young adults who are depressed will tend to seek help when they have knowledge about the disease and the availability of professional sources, the courage to express feelings, and established and trusted relationship with potential help providers (Rickwood et al., 2007).

The reason for a good access, closeness, and a need for trusted relationships with professionals can explain those that are considered as appropriate in providing assistance to adults. According to that needs, friends, family, and partners were the most preferred source of help for them (D'Avanzo et al., 2012). These findings demonstrated the importance of providing proper accessibility of health service to help people adopting precautions and other related health behaviors. In providing services or aids for adults one should consider the factor of the ability of the provider of service in developing a trust relation in prospective patients or users of the service.

As from EHBM, increased levels of perceived benefits, cues to action, self-efficacy, locus of control, and health motivation have been other findings associated with help seeking behavior. This argument agrees well with existing studies by O'Connor et al. (2014) that showed perceived benefits is strong and robust predictor of help seeking behavior. Another study by Chen and Lin (2010) exhibited that self-efficacy of health behavior and perceived action benefits are strongly associated with health-promoting lifestyle. Moreover, the study that aimed to predict Australian health behavior also showed the strong effect from locus of control variables (Trankle & Haw, 2009). Results of this analysis provide insight into the formation of health promotion program. It is conceivable that building positive and clear messages, which promote a sense of control, motivation, self-efficacy, and belief that they would benefit from help is a better approach for Indonesian people. This would be aligned with the data release from Kantar Indonesia online study (Kantar, 2020) that showed most of Indonesians feel that information would help them stay positive and be prepared through this period.

Although similar areas of research support the finding, it is quite a surprise to find that knowledge, perceived susceptibility, perceived severity, and perceived barriers had no statistical

correlation with help seeking behavior. On the other hand, the HBM suggests that perceived susceptibility and severity of the disease, which are strong cognitive components, are partly dependent on knowledge (Champion & Skinner, 2008). It means when individuals perceive the threat of a specific disease; they have a strong cognition of the disease. Regarding perceived susceptibility, COVID-19 is still considered a new disease, which generates many uncertainties in the community. Public information released by WHO is consistently being updated in terms of symptoms, prevention behavior, mode of transmission, and curative treatment (WHO, 2020a). This could lead into confusion, especially among people with low health literacy level. Furthermore, the HBM is a model that predicts how likely a person is to engage in health behaviors such as in seeking treatment. However, there is one important aspect that becomes a barrier to help seeking behavior and affects the individual perception that is not measured in this model, namely stigma (Lorento, 2017; Velasco et al., 2020). Stigma is defined as the fear of social sanctions or humiliation that makes someone hide or prevent certain actions or behaviors (Velasco et al., 2020). A literature review from January to July 2020 shows an increasing number of reports on the public stigmatization associated with COVID-19 patients in Indonesia which made people reject patients who have recovered, isolate medical personnel who work in hospitals, and reject dead bodies (Livina et al., 2020). Social impacts from the stigma would encourage people to hide their suffering of the disease to avoid discrimination (Lin, 2020). Stigma also prevents people from seeking health care immediately when experiencing the symptoms (Velasco et al., 2020). Those who might feel at risk or have the symptoms are more likely threatened by the stigma rather than by the disease itself (Perry & Donini-Lenhoff, 2010). Further research is needed to explore how people see COVID-19 as a serious threat and the role of social stigma to predict health behavior.

However, this study also had several limitations such as diversity of participants and generalization of the study findings because it was undertaken during COVID-19 pandemic. Further research needs to involve a more diverse participant sample. Online survey was selected since there was social and physical distancing as preventive measures of the spread of COVID-19. This online survey limited the recruitment process to just those that had the Internet connection. The online survey was less friendly to elderly resulting in the limited data for this category. Further researcher needs to create elderly ergonomics' tools in online survey, such as longer font size, easy to answer with one big click button, short and to the point questions. All unnecessary details should be taken out of the survey (Stiles, 2017). In the other hand, the lack of specific restrictions in demographic characteristics needs to be considered, i.e. participant access to online resources of information, categories of information and the resources, and variation of the proportion of participants with a vary economic levels. This would be useful to explore the help seeking behavior about COVID-19 in other contexts.

The researchers already used regression analysis and assessed demographic characteristics (Skelly et al., 2012) to adjust for confounders (Kamangar, 2014), but in the findings showed the low variance from the variables. It there might be other confounders that have not been measured i.e., mental health (Bao et al., 2020) and stigma related COVID-19 (Livina et al., 2020). In addition, further research needs to involve a larger sample size to minimized bias and address the online survey biases. As this study also did not differentiate between internal, external, and chance locus of control, so it cannot explain which locus of control was the strongest predictor of help seeking behavior in COVID-19. In the end, this study was cross-sectional and could make no inferences regarding cause and effects concerning COVID-19 help seeking behavior in Indonesian adults.

Conclusion

The only HBM factor that is significantly associated with help seeking behavior was the perceived benefits. Meanwhile, cues to action, self-efficacy, locus of control, and health motivation were found to be the extension factors of EHBM that were significantly associated with help seeking behavior. This study also found that from demographic characteristics, age was revealed to be the only factor that was significantly associated with help seeking behavior of Indonesian adults. Another finding from this study indicated that COVID-19-like symptoms and EHBM could predict COVID-19's

help seeking behavior for Indonesian adults. The extension factors of EHBM, such as locus of control and health motivation are an adequate framework that could help to predict COVID-19's help seeking behavior among participants. Therefore, efforts to promote COVID-19's help seeking behavior in Indonesian adults should not be limited to educating them about COVID-19 but should also consider their age level, COVID-19-like symptoms and EHBM.

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