

# BEHAVIOR OF HEALTH CARE PROFESSIONALS TO PROMOTING OF PHYSICAL ACTIVITY IN THE PANDEMIC COVID-19

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### REVIEW ARTICLE

#### BEHAVIOR OF HEALTH CARE PROFESSIONALS TO PROMOTING OF PHYSICAL ACTIVITY IN THE PANDEMIC COVID-19

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### ABSTRACT

**Background of the study:** Health care professionals are professionals who can be at the forefront of being able to promote physical activity so that immunity is maintained. Purpose: For this reason, it is necessary to know how the perceptions and attitudes of health care professionals towards the behavior of promoting physical activity. **Methods:** This study used a quantitative approach with cross sectional analytic design. The study population was doctors, nurses, and physiotherapists in seven developing provinces in Indonesia, with a sample size of 400. Data collection used primary data with an online questionnaire containing statements with Likert scale answers that had been tested for feasibility. Chi square test will be used in testing the hypothesis of the study. **Results:** There is a relationship between perceptions of the promoting behavior of physical activity of Health care professionals in Indonesia (p value= 0.01) and good perceptions will support promoting behavior 2.4 times better than those with less perceptions (OR = 2.397). There was no significant relationship between attitudes and physical activity promoting behavior among Health care professionals during the COVID-19 pandemic. **Conclusion:** Good perceptions will support 2.4 times the occurrence of physical activity promoting behavior among Health care professionals.

**Keywords:** Perception; Attitude; Behavior; Promoting; Covid-19.

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## INTRODUCTION

Non-communicable diseases, including heart disease, stroke, cancer, diabetes and chronic lung disease are collectively responsible for nearly 70% of all deaths worldwide. Nearly three-quarters of all deaths are due to infectious diseases, and 82% of the 16 million people who die prematurely, or before reaching the age of 70, occur in low- and middle-income countries<sup>1</sup>. In Indonesia, the trend of non-communicable diseases are diabetes mellitus, hypertension, and obesity in 2018 has increased from 2013<sup>2,3</sup>.

Promoting by education to the public for regular and appropriate physical activities, must become a culture for health care professionals. The Covid-19 pandemic which has been going on for one year continues to haunt people's lives, so to prevent transmission, they must comply with the health protocol. In addition to fulfilling the health protocol, people need to maintain their immunity in order to maintain their health<sup>4,5</sup>. The immunity of the human body is influenced by daily physical activities<sup>6,7</sup>.

health care professionals consisting of doctors, nurses, midwives, physiotherapists, nutritionists and others can be at the forefront in providing promotional efforts to patients and the community in delivering correct and appropriate education so that with continuous efforts, it can minimize the incidence of disease<sup>8,9,10</sup>.

Health care professionals who have behaviors that support promotional efforts will determine the success rate of the Clean and Healthy Living Community Movement Program (GERMAS). Behavior is generally associated with perceptions and attitudes<sup>11,12</sup>. Based on the

above background, the purpose of this study is to determine the behavior of health care professionals in carrying out the promotion of physical activity during the Covid-19 pandemic.

## METHODOLOGY

This study used a quantitative approach with analytic design cross sectional. The study population was doctors, nurses and physiotherapists in seven developing provinces in Indonesia as many as 195.917<sup>38</sup>, with a sample size of 400. Data collection used primary data with an online questionnaire containing statements with Likert scale answers that had been tested for validity and reliability. Chi square test will be used in testing the hypothesis of the study.

## RESULTS

Most respondents were nurses (67.2%). The majority of respondents came from DKI Jakarta Province with the largest age being 26-45 years (70%). The most recent level of education of respondents was bachelor / degree in applied education, amounting to 47.7% followed by Diploma (35.1%).

Health care professionals including doctors, nurses and physiotherapist in Indonesia are dominated by nurses. The promotive behavior of physical activity on good Health care professionals is 70% and 30% less. Data processing begins by looking at the normality of the data, namely by using the test of normality Kolmogorov-Smirnov, it was found that the data was not normal ( $p < 0.05$ ). The results of the chi square show that the perception of Health care professionals on physical activity is 90% good and 10% less. In the variable of attitudes towards promotive behavior, physical activity of Health care professionals obtained good results, namely 93% positive attitudes

and only 7% with negative attitudes. Perceptions and attitudes towards promotive

behavior of physical activity among Health care professionals in Indonesia are very good.

CHARACTERISTICS	AMOUNT	PERCENT
<b>Profession</b>		
- Physiotherapist	42	10,8
- Nurse	261	67,2
- Doctor	85	22,1
<b>Province</b>		
- Bali	18	4,6
- Di Yogyakarta	32	8,2
- Jawa Tengah	6	1,5
- Jawa Barat	33	8,5
- Bangka Belitung	10	2,6
- Jambi	13	3,3
- DKI Jakarta	278	71,3
<b>Age</b>		
- 46-65	100	25,6
- 26-45	273	70
- < 25	17	4,4
<b>Education</b>		
- Diploma	137	35,1
- Bachelor	186	47,7
- Magister/ specialist	60	15,4
- Doctorate	7	1,8
<b>Perception</b>		
- Less	37	9,5
- Good	353	90,5
<b>Attitude</b>		
- Negative	25	6,4
- Positive	365	93,6
<b>Behavior</b>		
- Less	118	30,3
- Good	272	69,7

**Table 1** Characteristic of Respondents

Hypothesis test between two categorical variables which is appropriate to use for abnormal data is chi square. The results of the chi square show that there is a relationship between perceptions of the promoting behavior of physical activity of Health care professionals in Indonesia ( $p$  value= 0.01) and that good perceptions support promoting

behavior 2.4 times better than those with less perceptions (OR = 2.397); so that the first hypothesis can be accepted, namely that there is a relationship between perceptions and promoting behavior of physical activity in Health care professionals during the Covid-19 pandemic.

The chi square results on attitudes toward physical activity promoting behavior among Health care professionals obtained p value 0.481, greater than 0.05, so the hypothesis is

rejected. There was no significant relationship between attitudes and physical activity promoting behavior among Health care professionals during the Covid-19 pandemic.

	Chi-Square Tests	Risk Estimate
<b>Behavior - Perception</b>	0.010	2.397
<b>Behavior - Attitude</b>	0,481	-

**Table 2** The Relationship between Perceptions and Attitudes on Promoting Behavior of Physical Activity. in Health Care Professionals

## DISCUSSION

In 2018 the lack of physical activity in Indonesia was 33.5%. The Covid-19 pandemic that has hit Indonesia since March 2020 has established health protocols, one of which is physical distancing and avoiding crowds, so that people will be less physically active than before the pandemic<sup>13,14,15</sup>.

Efforts to increase physical activity is to promote physical activity so that people can be motivated<sup>16,17,18</sup>. Through the promotion of physical activity, it can support the target of the Healthy Community Movement Program (GERMAS) according to the 2020-2024 Mid-Term Development Plan, namely increasing health promotion and community empowerment with strategic target indicators of increasing active PosPelayananTerpadu from 60% to 85%, Pos Bina Terpadu (Posbindu) active by 100%, and reduce the number of people who do not do physical activity less than 33.5% to 30%<sup>19</sup>.

Promoting behavior of physical activity among Health care professionals is dominated by good behavior, which is 70%. This figure is still

relatively large because as a Health care professional in Indonesia it is obliged to provide promotional efforts to patients or the community as a stage in carrying out professional duties, be it as a doctor, nurse, and physiotherapy<sup>20,21</sup>. Research in the city of Addis Ababa, Ethiopia, on 442 Health care professionals from 7 government hospitals consisting of doctors (135.34.9%), nurses (218.56.3%), and physiotherapists (34.8.8%) have filled questionnaire.

The results showed that the provision of promotive/professional counseling was low in the hospital, so it is necessary to determine a strategy to increase the provision of promotive/counseling on physical activity in hospital regulations<sup>22</sup>. Another study in Saudi Arabia, that out of 206 primary Health care professionals surveyed, 58.1% reported health awareness promotion programs carried out in hospitals and 64.6% reported that the health promotion system in hospitals needs to be improved<sup>23</sup>.

A different result carried out in Saudi Arabia also is that the majorities of primary care staff is quite enthusiastic in promoting physical

activity among patients and reveal that they regularly discuss and advise on the benefits of physical fitness. However, there are several factors that hinder the promotion of physical activity, such as i) lack of time, ii) lack of educational materials for patients, iii) lack of proper training and protocols for healthcare professionals, iv) lack of patient cooperation, and v) lack of financial incentives<sup>24</sup>.

Health care professionals have good perceptions and attitudes. Most of them have good perceptions and attitudes towards physical activity. 90% of Health care professionals' perception of physical activity is good and 10% is not good. Attitudes of Health care professionals towards physical activity were 93% positive and 7% negative.

The last education of respondents in this study is at least a diploma 3 which has technical learning outcomes so that Health care professionals have good perceptions and attitudes about physical activity. There is a significant difference in the opinion of health professionals regarding the perceived level of physical activity among the general population and observe the majority of respondents have a positive attitude that health promotion and encouragement of physical activity play a key role in primary care<sup>24</sup>.

A person's perception affects their behavior towards something, someone who has good perceptions generally has good behavior. The results of the chi square show that there is a relationship between perceptions of the promotive behavior of physical activity of health care professionals in Indonesia with a p value of 0.01 and that good perceptions will support promotive behavior 2.4 times better than those with less perceptions (OR = 2.397). Health professionals' perception of physical

activity is important because it will influence behavior in promoting physical activity<sup>25,26</sup>.

Chi square results on attitudes towards promotive behavior of physical activity among health care professionals obtained p value 0.481 greater than 0.05, so that there is no significant relationship between attitudes and promotive behavior of physical activity among Health care professionals during the Covid-19 pandemic. Positive attitudes affect behavior expected<sup>27,28,29</sup>. This result is different from previous studies where a positive attitude does not necessarily affect behavior, as in previous studies on hygiene behavior, it was found that the result of bivariate analysis was that there was a relationship between knowledge and hygiene behavior (p value 0.032) and there is no relationship between attitude and food processor hygiene behavior (p value 0.562)<sup>30</sup>.

An observational analytic study with a cross-sectional study of 126 respondents from all high schools / equivalent in South Siberut District showed that 53.2 percent of adolescents had an attitude that did not support premarital sexual behavior and there was no relationship between adolescent attitudes towards premarital sexual behavior<sup>31</sup>.

Attitudes that are not related to the promotive behavior of physical activity can be due to the Covid-19 pandemic. Promotional efforts made by Health care professionals in health services will of course require longer time than treatment alone, health services are not optimal because during the pandemic, minimal interaction is attempted so that no Covid-19 transmission occurred<sup>32,33</sup>.

The level of stress on health care professionals during the pandemic also increases so that attitudes and behaviors are not related,

because there is anxiety that Health care professionals will be infected with Covid-19 or can transmit it to family members<sup>34,35,36,37,38</sup>.

## CONCLUSION

In accordance with the objectives of the study, based on the results and discussion the conclusions good perceptions will support 2.4 times the occurrence of physical activity promotive behavior among health care professionals and There is no significant relationship between attitudes and promotive behavior of physical activity in Health care professionals during the COVID-19 pandemic. Suggestions for further research are to use a different approach from this study so that the reasons for perceptions and attitudes towards promoting behavior in physical activity can be explored deeper.

**Conflicts of Interest:** The authors declare that there is no competing interest in publishing this article.

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