



## EARLY DETECTION OF MENTAL HEALTH PROBLEMS HEALTH PERSONNEL DURING COVID-19 PANDEMIC

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### ABSTRACT

The determination of the pandemic condition by WHO has caused various public responses and psychosocial problems. This research is important because the spread of the virus is very fast, widespread and mass causes cases to increase and have an impact not only on physical but also psychological conditions, causing mental health problems. Various efforts have been made by the government to combat the epidemic, community participation involving individuals, families and community groups is urgently needed to solve this problem. The purpose of this study was to identify mental health problems experienced by health workers due to the COVID-19 pandemic and to develop a model for early detection of mental health problems. This research method uses a quantitative approach with three stages of research. The first research stage is the exploration of mental health problems experienced by health workers. The second stage is developing a model for early detection of mental health problems and providing mental health and psychosocial support. The third stage is the use of early detection models in handling mental health problems for health workers. The method of data collection was carried out using a Self-Reporting Questionnaire (SRQ) questionnaire and the implementation of Habit Adaptation met the criteria. The sample was taken using purposive sampling technique. Data was obtained using a questionnaire and analyzed by the paired t test. The results showed that there was a difference between pre-test and post-test, meaning that that interventions are effective in addressing physical and psychosocial health problems.

**Keywords:** covid-19 pandemic; early detection of mental health problems; providing mental health and psychosocial support

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### INTRODUCTION

Since the stipulation of the Public Health Emergency of International Concern (PHEIC) or Public Health Emergency of World Concern (KMMD) as a Pandemic by WHO on March 11, 2020, various public responses have emerged that have caused national anxiety in the COVID-19 outbreak situation. The cause of COVID 19 is Sars-Cov 2, a very small virus, which causes damage to the pulmonary alveoli when it enters the respiratory tract and causes respiratory failure and even death.

The spread of this virus is very fast, widespread and mass, so cases are increasing and impacting not only physical but also psychological conditions. The results of research on mental health and psychosocial problems after the 2004 tsunami showed a 2-fold increase after 12 months. Research during the SARS outbreak showed that several health workers at

Toronto's Mount Sinai Hospital experienced emotional reactions of fear of contagion, loneliness, stigma, boredom, anger, anxiety and uncertainty (Maunder, 2003). Based on the results of the 2018 Basic Health Research (Riskesdas) from the Health Development Research Agency of the Ministry of Health of the Republic of Indonesia (Kemenkes RI, 2018), the prevalence of emotional mental disorders in the Indonesian population is 6.0%.

Various efforts have been made by the government to combat this outbreak, by implementing health protocols in several areas to support health and safety from transmission. However, there are still impacts on the physical and psychological health of the community and health workers. Even though a vaccine has been found and vaccines have been administered to health workers, the number of COVID-19 victims is still very high and there is no specific drug that has been determined as the right treatment. This makes psychosocial conditions such as anxiety, fear, restlessness, suspicion of fellow individuals, increasing. We do not know when this pandemic will end, even if vaccines and drugs have been found, the Sars-Cov 2 virus will still exist like previous viruses, for example influenza, tuberculosis and others. This condition raises several psychosocial problems experienced by the community and health workers continue to exist.

Mental health and psychosocial problems are not only experienced by clients and the community, but also by health workers who treat clients. They also become anxious, anxious and afraid of being infected while treating confirmed patients. Fatigue from having to treat many patients plus a lack of rest and intake of nutritious food as well as feelings of anxiety can reduce the stamina of health workers which, if continued, can lead to susceptibility to virus transmission for health workers. This condition is of course not expected by all health workers, because they are supposed to provide the best care while maintaining their own health, but due to mental and psychosocial health problems, their immunity can decrease. For this reason, proper handling is needed for overcome mental health and psychosocial problems caused by the COVID-19 pandemic. Nursing actions in the form of mental health and psychosocial support (DKJPS) packaged in a model and module will be very useful in helping the community and health workers solve mental health problems, so that psychosocial problems and their perceived impact can be resolved. The provision of mental health and psychosocial support will be carried out to reduce mental health problems during the COVID-19 pandemic.

The formulation of the problem in this study is "What are the characteristics of mental health problems for health workers during the COVID 19 pandemic? What is the right model for early detection of these problems? How is the effectiveness of mental health and psychosocial support in dealing with mental health problems?". The purpose of this study was to identify mental health problems for health workers during the COVID-19 pandemic, to develop a model for early detection of mental health problems, to implement mental health and psychosocial support in handling psychosocial problems during the COVID-19 pandemic. Based on this background and reasons, the research was conducted.

The target and outcome to be achieved in this research is that health workers receive mental health and psychosocial support and do not experience mental health problems during the COVID-19 pandemic. An early detection model is developed that can be used to detect mental health problems for health workers and the public. Compiled a simple patent model for early detection of mental health problems. As well as publication of research results to reputable national journals.

**METHOD**

This study uses a pre-experimental design with a single group pre-test and post-test. The number of samples is 76 nurses. The sample was taken using purposive sampling technique. Data was obtained using a questionnaire and analyzed by the paired t test, because the results of normality for data using the Kolmogorov Smirnov test. This research method uses a qualitative approach with three stages of research. The first research stage is the exploration of mental health problems experienced by health workers with the output of identifying various psychosocial problems. The second stage is developing a model for early detection of mental health problems and providing mental health and psychosocial support (DKJPS) with the outputs identified and an early detection model being formed and the implementation of providing DKJPS. The third stage is the use of an early detection model in handling mental health problems for health workers with the output of the effective use of the model formed in handling mental health problems.

**RESULTS**

This section discusses the results of the implementation of research on early detection of mental health problems in health workers. Sampling was carried out on the programmer mental health center nurses in the work area of the Brebes District Health Office as many as 38 health centers and the implementing nurses at the Sultan Agung Islamic Hospital as many as 38 nurses. The complete identity of the subject can be seen in the data description table below:

Table 1.  
Characteristics of Respondents (n=76)

Characteristics of Respondent	Frequency	Percent (%)	
Age	22-45	35	46
	>46	41	54
Gender	Male	30	39.5
	Female	46	60.5
Occupations	Nurse at Puskesmas	38	50
	Nurse at Hospital	38	50

Based on table 1 above, there are 35 nurses who ages 22-45 old (46%), and 41 nurses who ages >46 old (54%). The majority of respondents are female, as many as 46 nurses (60.5%) and male as many as 30 nurses (39.5%). That all respondents are nurses who work in health services both at the puskesmas as many as 38 nurses (50%) and in hospitals as many as 38 nurses (50%).

Table 2.  
Fisical Health Conditions of Respondent (n=76)

Condition	Pretest		Posttest		P Value
	f	%	f	%	
Health	55	72.4	76	100	0.000
No Health	21	27.6	0	0	

Based on table 2 above, in the pretest measurement, there were 21 nurses (27.6%) physically unhealthy and 55 nurses (72.4%). Meanwhile, in the posttest measurement, all 76 nurses (100%) were physically healthy.

Table 3.  
Mental Health and Psychosocial Conditions of Respondent (n=76)

Condition	Pretest		Posttest		P Value
	f	%	f	%	
Health	55	72.4	76	100	0.000
No Health	21	27.6	0	0	

Based on table 3 above, in the pretest measurement, 55 nurses (72.4%) did not experience psychosocial problems and 21 nurses (27.6%) experienced psychosocial or mental emotional problems. Meanwhile, in the posttest measurement, all 76 nurses (100%) were mentally and emotionally healthy.

## DISCUSSION

### Physical Health Condition

The results showed that from 76 respondents, there were 21 nurses (27.6%) who were in the category of physically unhealthy, at the time of the study the nurses were in an unhealthy condition physically. Having mild physical health problems. The pretest measurement was carried out on the first day of data collection before participating in the DKJPS training. While the posttest was conducted on the 28th day of the study and after participating in the DKJPS training.

The respondents' physical health conditions were categorized as healthy, travellers, close contacts, suspected cases, probable cases, confirmed cases of COVID 19 and Vulnerable Persons. Healthy people are people who have no symptoms, are not in contact with people with COVID-19 (workers from hospitals or at home with those who are sick with COVID-19), are not in infected areas abroad or domestically (KMK, 2020). A traveler is someone who has traveled from within the country (domestic) or abroad in the last 14 days (KMK, 2020). Close contact is a person who has a history of contact with a probable or confirmed case of COVID-19 (face-to-face contact/adjacent to a probable case or confirmed case within a radius of 1 meter and within 15 minutes or more; direct physical touch with a probable or confirmed case). shaking hands, holding hands; people who provide direct care for probable or confirmed cases without using standard PPE; other situations that indicate contact based on a local risk assessment determined by the local epidemiological investigation team (KMK, 2020).

Suspected cases are people with Acute Respiratory Tract Infections (ARI) and in the last 14 days before symptoms appear, have a history of travel or living in the country/territory of Indonesia reporting local transmission; people with one of the symptoms/signs of ARI and in the last 14 days before the symptoms appeared had a history of contact with confirmed/probable cases of COVID-19; people with severe ARI/severe pneumonia who require hospitalization and no other cause based on a convincing clinical picture (KMK, 2020). Probable cases are suspected cases with severe ARI/ARDS/died with a convincing clinical picture of COVID-19 and no RT-PCR laboratory results (KMK, 2020). A confirmed case is a person who is declared positive for being infected with the COVID-19 virus as evidenced by the RT-PCR laboratory examination (confirmed case with symptoms/symptomatic; confirmed case without symptoms/asymptomatic) (KMK, 2020). Vulnerable people are groups of people who are at risk/sensitive to COVID-19 infection due to current conditions, including vulnerable groups: the elderly; people with comorbid/chronic diseases; pregnant women, postpartum and breastfeeding; children; physical disability; People with Mental Disorders; pre-prosperous family; health workers who directly handle COVID-19 patients. (KMK, 2020)

Physical health referred to in this study is a group that is categorized as healthy people, not travellers, close contacts, suspected cases, probable cases, confirmed cases of COVID 19 and not vulnerable groups. Respondents in this case are nurses who are really healthy people who meet the definition criteria. With DKJPS training provided to nurses and mentoring for 28 days, all nurse respondents were physically healthy at the end of the measurement. Respondents did not contract COVID 19 and did not transmit COVID 19 to others. Assistance is provided by the facilitator/research team to all nurse respondents. Furthermore, volunteers accompany the volunteer families and accompany the assisted families for 28 days under coordination with the facilitator/research team. Physical health indicators are measured using online screening.

### **Mental Health and Psychosocial Conditions**

The results of the research on the pretest measurement showed that of the 76 nurse respondents, there were 21 nurses (27.6%) who were categorized as experiencing mental health and psychosocial problems in the pretest measurement, as many as 55 nurses (72.4%) did not experience mental health and psychosocial problems. In the posttest measurement, all respondents 76 nurses (100%) did not experience mental health and psychosocial problems. The pretest measurement was carried out on the first day of the study before participating in the DKJPS training, the posttest was carried out on the 28th day of the study and after participating in the DKJPS training, with assistance from the facilitator/research team.

Mental and psychosocial health conditions are categorized as healthy, experiencing mental emotional disorders, using psychoactive substances, experiencing psychotic symptoms and there are indications of symptoms of post-traumatic stress disorder (PTSD). Mental health is a condition that allows optimal physical, intellectual and emotional development of a person and that development runs in harmony with the circumstances of others (UU Keswa, 1966). Mental emotional disorder is the same term as psychological distress. This condition is a condition that indicates a person is undergoing psychological changes. In contrast to severe mental disorders, psychosis and schizophrenia, mental emotional disorders are disorders that can be experienced by everyone in certain circumstances, but can be recovered as before. This disorder can continue to become a more serious disorder if it is not successfully addressed (Riskasdas, 2018).

The use of psychoactive substances is the behavior of consuming or using ten groups of substances: alcohol, caffeine, cannabis. Hallucinogens (phencyclidine or similar arylcyclohexylamines), other hallucinogens such as LSD, inhalants, opioids, sedatives, hypnotics, anxiolytics, stimulants (including amphetamine-type substances, cocaine, and other stimulants), tobacco, and other unknown substances (Mardiati, 2013). Psychotic symptoms are symptoms that are shown because of a condition in which sufferers have difficulty distinguishing between reality and imagination. Symptoms that appear in psychotic patients are delusions or delusions, and hallucinations. Post-traumatic stress disorder is an anxiety disorder that makes sufferers remember the traumatic event. Traumatic events that can trigger PTSD include war, accidents, natural disasters, and sexual harassment.

Mental and psychosocial health according to this study is the condition of respondents who fall into the criteria of mentally healthy people, do not experience mental emotional disorders, do not use psychoactive substances, do not experience psychotic symptoms and have no indications of symptoms of post-traumatic stress disorder (PTSD). In the initial measurement, 21 nurse respondents (27.6%) experienced mental health and psychosocial problems. Psychosocial problems experienced are anxiety and worry about the COVID-19 pandemic.

After being given DKJPS training for 3 days and mentoring for 28 days, none of the respondents experienced mental health and psychosocial problems. The training provided includes providing an understanding of mental health and psychosocial problems during the COVID-19 pandemic, their prevention and handling and implementation practices. Assistance is provided through online communication, interaction and consultation. Mentoring is a process of providing facilities (facilities) provided by mentors to clients in identifying needs and solving problems and encouraging the growth of initiative in the decision-making process, so that client independence on an ongoing basis can be realized. The mentoring time provided is 28 days, so it is very sufficient and meaningful in changing the mental and psychosocial conditions of the respondents. Analysis using the Wilcoxon test and obtained p value 0.000 (<0.05) means that there is an effect of mental health and psychosocial support on the handling of psychosocial problems.

Table 4  
Implementation of New Habit Adaptation: Increasing Physical Immunity

No	Implementation of New Habit Adaptation: Increasing Physical Immunity	AKB Implementation			
		Week 1 n=76	Week 2 n=76	Week 3 n=76	Week 3 n=76
1	Makan Bergizi	97,92	98.44	96.81	99,26
2	Minum 2 liter/hari	94,00	95.50	96.225	99,26
3	Olah raga min. 30 menit	72,80	75.10	98.755	93,62
4	Berjemur 15 menit sebelum jam 09.00 atau sebelum jam 15.00	71,88	72.41	98.25	94,84
5	Istirahat 7 jam	88,72	91.04	90.43	97,23
	Rata-Rata	85,06	86,50	97,35	98,84

Based on table 4 above, it shows that there is an increase in the implementation of adaptation to a new habit: an increase in physical immunity. At the pretest measurement (first week) as much as 85.06% and at the end of the study (fourth week) it increased to 98.84%.

Table 5  
Implementation of New Habit Adaptation: Increasing Mental Immunity

No	Implementation of New Habit Adaptation: Increasing Mental Immunity	AKB Implementation			
		Week 1 n=76	Week 2 n=76	Week 3 n=76	Week 4 n=76
1	Fisik Rilek	88,90	90.43	96.81	99,26
2	Emosi Positif	89,94	92.45	96.225	98,94
3	Pikiran Positif	96,68	97.51	98.755	99,26
4	Perilaku Positif	95,34	96.50	98.25	99,26
5	Relasi Positif	91,87	90.43	90.43	99,26
6	Spiritual Positif	92,95	94.71	97.355	99,26
	Rata-Rata:	92,61	94.17	96.30	99,21

Based on table 5 above, it shows that there has been an increase in the implementation of adaptation of new habits: an increase in mental immunity. At the pretest measurement (first week) as much as 92.1% and at the end of the study (fourth week) increased to 99.21%.

Based on table 6 above, it shows that there has been an increase in the implementation of adaptation to new habits: prevention of physical transmission of COVID-19. At the pretest

measurement (first week) as much as 90.63% and at the end of the study (fourth week) increased to 98.16%.

Table 6.  
Implementation of New Habit Adaptation: Physical Prevention of COVID-19 Transmission

No	Implementation of New Habit Adaptation: Physical Prevention of COVID-19	AKB Implementation			
		Week 1 n=76	Week 2 n=76	Week 3 n=76	Week 4 n=76
1	Menjaga Jarak Sosial 2 meter	88,25	88.69	94.345	97,6
2	Menjaga Jarak Fisik 2 meter	88,29	87.96	93.98	97,6
3	Memakai Masker	99,69	99.77	99.92333	99,26
4	Mencuci tangan	98,04	98.53	99.51	99,26
5	Menghindari kerumunan-tinggal di rumah	86,29	87.22	87.22	95,52
6	Membersihkan Handphone	73,83	76.62	88.31	98,61
7	Melakukan etika Batuk dan Bersin	100,00	100,00	100	99,26
	Rata-Rata:	90,63	94,37	94.75	98,16

Table 7.  
Implementation of New Habit Adaptation: Prevention of Individual Mental Health and Psychosocial Problems

No	Implementation of New Habit Adaptation: Prevention of Individual Mental Health and Psychosocial Problems Individu: BAAR	AKB Implementation			
		Week 1 n=76	Week 2 n=76	Week 3 n=76	Week 4 n=76
1	Tarik Nafas dalam	95,34	95.34	98.83	99,26
2	Memastikan Informasi valid	98,46	95.34	98.83	99,26
3	Melakukan tindakan sesuai anjuran pemerintah	99,69	95.34	98.83	99,26
4	Mengevaluasi Tindakan yang dilakukan	97,42	95.34	98.83	99,26
	Rata-Rata	85,06	86,50	97,35	98,84

Table 8  
Implementation of New Habit Adaptation: Prevention of Mental Health and Psychosocial Problems in Families and Society

No	Implementation of New Habit Adaptation: Prevention of Mental Health and Psychosocial Problems in Families and Society	AKB Implementation			
		Week 1 n=76	Week 2 n=76	Week 3 n=76	Week 4 n=76
	Keluarga				
1	Kumpul keluarga serumah	84,58	84.58	94.86	99,26
2	Keluarga mengetahui masalah kes. Covid19	99,69	84.58	96.145	99,26
3	Keluarga mampu mengambil keputusan Kesehatan	98,46	84.58	94.86	99,26
4	Keluarga mampu merawat	98,15	84.58	94.86	99,26
5	Keluarga mampu menciptakan suasana yang kondusif	99,38	84.58	94.86	99,26
6	Keluarga mampu menggunakan fasilitas Kes.	85,94	84.58	92.29	98,94
	Rata-Rata:	94,37	99,27	99.70	99,21
	Masyarakat				
1	Gotong Royong	96,06	97,71	99,18	99,26
	Rata-Rata:	96,06	97,71	99,18	99,26

Based on table 7 above, it shows that there is an increase in the implementation of adaptation of new habits: prevention of mental health and psychosocial problems individually. At the pretest measurement (first week) as much as 85.06% and at the end of the study (fourth week) it increased to 98.84%.

Based on table 8 above, it shows that there is an increase in the implementation of adaptation of new habits: prevention of mental health and psychosocial problems (family and community). In the pretest measurement (first week) the family effort was 94.37% and at the end of the study (fourth week) it increased to 99.21%. While the efforts made by the community, namely mutual cooperation in the pretest measurement (first week) of 96.06% increased to 99.26% in the final measurement (fourth week).

## CONCLUSION

Identified characteristics of research respondents. The respondent's mental health and psychosocial problems were identified during the COVID-19 pandemic. Implemented the provision of interventions, namely mental health and psychosocial support training to overcome health problems. A screening model application was formed in the play store. DKJPS training for nurses for 3 days and assistance for 28 days by facilitators succeeded in overcoming mental health and psychosocial problems during the COVID-19 pandemic.

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