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Coping strategies of healthcare providers on social stigma due to COVID-19 using the Roy adaptation model approach

Estrategias de afrontamiento de los proveedores de atención médica sobre el estigma social debido a COVID-19 utilizando el enfoque del modelo de adaptación de Roy

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SUMMARY

Introduction: *The negative stigmatization of COVID-19 in healthcare has caused psychosocial problems, including stress. An effective coping strategy is needed to overcome existing problems. This study aimed to determine healthcare providers' coping strategies and the social stigma about COVID-19 using Roy's adaptation model approach and its influencing factors.*

Methods: *The design used descriptive analysis with incidental sides, so the total sample size was 530 with accidental sampling. The instrument used was the Brief Cope Inventory, and the data were analyzed using a descriptive statistical test.*

Results: *The results showed that the median emotion-focused mean was 3.00, with the lowest mean number being 1.50 and the highest being 3.70. The median problem-focused mean was 3.17, with the lowest mean number being 2.00 and the highest number being 4.00. The median dysfunctional was 3.08, with the lowest mean being 1.75 and the highest number being 3.75. The proportion of coping strategies is mostly problem-focused at 62.8 %, emotion-focused at 21.5 %, and dysfunctional at 15.7 %.*

Conclusion: *Problem-focused coping involves active efforts to change or reduce sources of stressors as well as individuals tend to research causal relationships, plan, act, and adapt to stressful situations by acting directly on themselves or the environment. Someone who uses problem-focused coping is a form of adaptive adaptation.*

Keywords: *coping strategies, COVID-19, stigma*

RESUMEN

Introducción: *La estigmatización negativa de la COVID-19 en el ámbito sanitario ha provocado problemas psicosociales, incluido el estrés. Se necesita una estrategia de afrontamiento eficaz para superar los problemas existentes. Este estudio tuvo como objetivo determinar las estrategias de afrontamiento de los proveedores de atención médica y el estigma social sobre COVID-19 utilizando el enfoque del modelo de adaptación de Roy y sus factores influyentes.*

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Métodos: *El diseño utilizó el análisis descriptivo con lados incidentales, por lo que el tamaño total de la muestra fue de 530 con muestreo accidental. El instrumento utilizado fue el Brief Cope Inventory, y los datos fueron analizados mediante una prueba estadística descriptiva.*

Resultados: *Los resultados mostraron que la media centrada en la emoción mediana fue de 3,00, con la media más baja de 1,50 y la media más alta de 3,70. La mediana de la media centrada en el problema fue de 3,17, con la media más baja de 2,00 y la media más alta de 4,00. La mediana de disfuncionales fue de 3,08, con la media más baja de 1,75 y la media más alta de 3,75. La proporción de estrategias de afrontamiento principalmente se centra en el problema con un 62,8 %, centrada en la emoción con un 21,5 % y disfuncional con un 15,7 %.*

Conclusión: *El afrontamiento centrado en el problema implica esfuerzos activos para cambiar o reducir las fuentes de los factores estresantes, y los individuos tienden a investigar las relaciones causales, planificar, tomar medidas y adaptarse a las situaciones estresantes actuando directamente sobre sí mismos o sobre el entorno. Alguien que utiliza el afrontamiento centrado en el problema es una forma de adaptación adaptativa.*

Palabras clave: *Estrategias de afrontamiento, COVID-19, estigma.*

INTRODUCTION

The spread of COVID-19 is not only a health problem because is it radiated (1-3). This has led to changes in various aspects and unwittingly changed the behavior of people around the world, including, in this case, the perspective of each other (4-7). Changes in behavior and behavior between fellow humans occurred in Indonesia as a result of the COVID-19 pandemic, which in the end, is a negative social stigma aimed at healthcare who are at the forefront of handling COVID-19 patients (3,6,8-10). Social stigma in health is a negative relationship between a person or community with certain characteristics and diseases. In an outbreak, a person with a certain condition of disease will be labelled, stereotyped, discriminated against, treated separately, and experience loss of status because of a perceived relationship with an illness. The stigma associated with COVID-19 is based on three main factors: new diseases and unknown diseases, frequent fear of the unknown, and it is easy to associate this fear with other people (6,11-13).

The results of a survey by the Faculty of Nursing, University of Indonesia, and the Indonesian Mental Health Nurses Association show that as many as 140 nurses have felt humiliated by others because of their status as COVID-19 nurses or healthcare in the hospital where COVID-19 is being handled. This survey proves the rejection of nurses that the media have reported. The poll conducted in early April 2020 of 2 050 nurses throughout Indonesia also showed that 135 nurses had been asked to leave their homes. According to the survey, the real forms of rejection experienced by nurses include the threat of eviction (66 respondents), people around them avoiding by closing their house fences or doors when they see nurses (160 respondents), and the community also keeping away from the nurse's family (71 respondents) (14,15).

The results of a survey conducted by the Tsunami and Disaster Mitigation Research Center Team (TDMRC) of 1 132 respondents from 12 health professions in public health services in 23 districts or cities in Aceh, 90 % of respondents felt that they were significantly at risk of contracting the Coronavirus in carrying out their duties. Furthermore, most respondents claimed to have been rejected by residents because they know they handle Coronavirus patients. This negative stigmatization of COVID-19 for healthcare can cause adverse psychosocial problems, namely stress. Long-lasting stress will trigger psychological issues such as anxiety, fear, panic, depression, and helplessness. This stigmatized healthcare also thinks about the negative impacts that will be faced by their family and loved ones because they are also ridiculed and shunned. Therefore, coping strategies are needed. Coping in this situation is a process of controlling the stimulus to maintain the body's integrity and psychological (16-18).

Callista Roy popularized the theory that explains adaptive coping in 1960. Roy developed an adaptation model in the open systems model. A system is seen as having several interrelated elements to form a single goal-oriented unit. Roy's adaptation model describes how individuals can improve their health by maintaining adaptive behavior because humans are holistic beings with an adaptive system constantly adapting. This adaptive model can lead to positive and negative coping behaviors. The adaptive model consists of

four components such as 1) physiological mode, 2) self-concept mode, 3) role function mode, and 4) interdependency mode. The self-concept described by Roy refers to the need for mental integrity by interacting with oneself and others. Interaction with oneself, the basis of coping behaviour, includes physical and personal self. The physical self consists of self-sensation and self-image. The personal self consists of self-consistency, ideal self, and ethical and spiritual morals (19).

The results of the preliminary survey on 20 healthcare consisted of 4 doctors (20 %), 8 nurses (40 %), 4 nutritionists (20 %), 2 pharmacies (10 %), and 2 midwives (10 %). Most of the coping strategies used Emotion-Focused Coping Strategies with 10 respondents (50 %) tried to think positively and get closer to God. Problem-Focused Coping Strategies as many as 6 respondents (30 %) among them got motivation from colleagues and looked for solutions to the problems at hand. Dysfunctional Coping Strategies as many as 4 respondents (20 %) of whom were in denial and wanted to stop being in healthcare. Each individual uses different coping strategies in dealing with problems because humans are unique and have varying coping strategies. In general, coping is automatic when individuals experience pressure from outside and within. Individuals using coping strategies are influenced by several factors, including economy, abilities, skills, education and knowledge, social support, motivation, self-efficacy, position and work shift, and gender (20-22).

The coping strategies most often used by nurses are positive strategic approaches and reassessments, problem-based solutions, work planning, priority setting in work, seeking social support, and self-control. Meanwhile, coping strategies are rarely used, focusing on emotions such as avoidance, humour, rejection, self-blame, and acceptance of responsibility. Likewise, passive strategies such as asking God are reported to be rarely practiced (22). The previous study explains that every individual who experiences problems will use various coping strategies (21). A constructive coping strategy will allow individuals to adapt and support the functions of integration, growth, learning, and achieving goals. The inability of individuals to deal with problems constructively is the main cause of maladaptive behavior. Based on this description, it is necessary to conduct a study to describe the coping strategies used by health workers in Indonesia in dealing with the stigma caused by COVID-19 with Roy's adaptation approach and to determine healthcare providers' coping strategies and the social stigma about COVID-19 using Roy's adaptation model approach and its influencing factors.

METHODS

The design of this study was a descriptive analysis to determine the coping strategies of healthcare providers on social stigma due to COVID-19. The population was healthcare who worked in health services in Indonesia. The number of samples was 530 through the incidental sampling technique. The inclusion criteria in this study included: 1) The healthcare was someone who worked in health services with COVID-19 patients (hospitals, health centers, isolation homes); 2) Minimum education level of senior high school/equivalent; 3) Willing to be respondent. While the exclusion criteria were a non-healthcare provider who works in health services with COVID-19 patients. The research instrument used the Brief Cope Inventory developed by Carver (1989) (23) based on the theory of Lazarus and Folkman (1984) (24), consisting of 28 question items with 14 subscale items. The data analysis used descriptive statistics. Data collection was carried out using Google Forms in June 2020. Ethical test from the Sekolah Tinggi Ilmu Kesehatan Maluku Husada with number RK.012/KEPK/STIK/III/2021.

RESULTS

Respondent Characteristics

The analysis results are based on Table 1. Most respondents were female, as many as 365 (68.9 %) and the total number of male respondents is 165 (31.1 %). The proportion of married marital status was 408 respondents (77.0 %). The proportion of education levels, mostly diplomas, was 239 respondents (45.1 %). The proportion of profession of the most nurse was 417 respondents

(78.7 %). The proportion of work rotation (shift) was mostly rotations or shifts for as many as 360 respondents (67.9 %). The proportion of salary was the most appropriate to the Regional Minimum Wage for as many as 219 respondents (41.3 %). Finally, the proportion of living with most of the respondents live with their families, as many as 482 respondents (90.9 %).

Table 1

Respondent Characteristics

Variable	Mean	Median	SD	Min-Max	95 % CI
Lower-Upper					
Age	33.33	31.00	8.16	20-60	32.63-34.02
Length of working	9.65	7.00	7.83	1-36	8.99-10.32
	Variable			n	%
Gender	Man			165	31.1
	Women			365	68.9
Marital Status	Single			115	21.7
	Married			408	77.0
	Widower/Widow			7	1.3
Education Level	High School			2	0.4
	Diploma			239	45.1
	Bachelor			234	44.2
	Postgraduate			32	6.0
	Specialist			21	4.0
	Doctoral			2	0.4
Profession	Nurse			417	78.7
	Doctor			34	6.4
	Nutritionists			12	2.3
	Pharmacist			10	1.9
	Analyst/laboratory assistant			3	0.6
	Midwife			51	9.6
	Others			3	0.6
Shift	Yes			360	67.9
	No			170	32.1
Salary	Under Regional Minimum Wage			179	33.8
	Appropriate Regional Minimum Wage			219	41.3
	Above Regional Minimum Wage			132	24.9
Living with	Alone			20	3.8
	With Friend			28	5.3
	With Family			482	90.9

*Data was normally distributed.

The analysis results in Table 2 showed that the median emotion-focused mean was 3.00, with the lowest mean of 1.50 and the highest mean of 3.70. The median problem-focused mean was 3.17, with the lowest mean 2.00 and the highest mean 4.00. The median mean dysfunctional was 3.08, with the lowest mean of 1.75 and the highest mean of 3.75. The proportion of coping strategies was mostly problem-focused as many as 333 respondents (62.8 %), emotion-focused, as many as 114 respondents (21.5 %), and dysfunctional as many as 83 respondents (15.7 %). The proportion of coping adaptation was mostly adaptive coping, with as many as 447 respondents (83.4 %), and maladaptive coping as many as 83 respondents (15.7 %).

Table 2

Coping Strategies and Coping Adaptation

Variable		Mean	Median	SD	Min-Max	95 % CI
Lower-Upper						
Mean Emotion-Focused		2.98	3.00	0.28	1.50-3.70	2.95-3.00
Mean Problem-Focused		3.22	3.17	0.32	2.00-4.00	3.19-3.25
Mean Dysfunctional		3.04	3.08	0.27	1.75-3.75	3.01-3.06
Variable					n	%
Coping Strategies	Emotion-Focused Strategy Coping				114	21.5
	Problem-Focused Strategy Coping				333	62.8
	Dysfunctional Strategy Coping				83	15.7
Coping Adaptation	Adaptive				447	83.4
	Maladaptive				83	15.7

*Data was normally distributed

DISCUSSION

The results of a statistical analysis based on coping strategies showed that most of the proportions of coping strategies were problem-focused, as many as 333 respondents (62.8 %), emotion-focused, as many as 114 respondents (21.5 %), and dysfunctional as many as 83 respondents (15.7 %). Problem-focused coping involves active efforts to change or reduce sources of stressors. When using a problem-focused coping approach, individuals tend to research causal relationships, plan, take action and adapt to stressful situations by acting directly on themselves or the environment, which is similar to goal-oriented behavior (25,26).

Problem-focused coping strategies include active coping, instrumental coping, and planning. Active coping is concentrating efforts on doing something about a situation or taking action to try to make it better. Instrumental support is getting help and advice from others or trying to get advice or assistance from others about what to do. Planning or planning seeks to make a strategy about what to do or think hard about what steps to take (27). The respondent's characteristics can also influence the coping strategies shown by the respondent. Respondents' characteristics show a significant relationship with coping strategies such as age, gender, length of work, and salary.

A statistical analysis based on coping strategies showed that most of the proportion of coping adaptation was adaptive coping, as many as 447 respondents (83.4 %) and maladaptive coping, as many as 83 respondents (15.7 %). Roy describes humans, individually and in groups, as a holistic, adaptive system, complete with coping processes that sustain adaptation and promote the transformation of people and the environment. As with all types of systems, humans have internal processes that act to maintain the integrity of an individual or group. This process has been broadly categorized as a regulatory subsystem and a cognitive subsystem for people and a stabilizer and innovator for groups (28).

Roy's Adaptation Model defines the innate coping process and gets it into 2 sub-systems such as the regulator sub-system and the cognate subsystem. The regulatory sub-system consists of neurochemical and endocrine responses. Internal and external stimuli are social, physical, and psychological factors. The cognate sub-system is related to attention, memory, learning, problem-solving, decision-making, excitement, and defense status. The statistical analysis results show that most of the proportion of adaptation used by healthcare to the stigma of COVID-19 is an adaptive mechanism. The adaptive coping mechanism consists of problem-focused (consisting of acting coping, instrumental support, and planning) and emotion-focused

coping strategies (consisting of acceptance, emotional support, humor, positive reframing, and religion), meaning that coping strategies are used by healthcare. Includes innate and acquired coping processes that involve the regulator and cognate sub-systems (27,28).

CONCLUSION

The results related to COVID-19 are problem-focused and emotional-focused coping strategies, meaning that according to coping adaptation, Roy's Adaptation Model states that these strategies include adaptive coping mechanisms. Therefore, healthcare is expected to use coping strategies such as active coping, instrumental support, planning, acceptance, emotional support, humor, positive reframing, and religion because these are included in the Problem-focused and Emotion-focused Coping Strategies.

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