Working Tenure as One of the Factor Associated with Stigma towards Healthcare Practitioners during Pandemic

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ABSTRACT

Background: Healthcare practitioners faced psychological challenges, including stigmatization, during the COVID-19 pandemic. Both healthcare practitioners and the general population experienced stigma due to uncertainty. Aim: To understand factors associated with social stigma towards healthcare practitioners caring for COVID-19 patients. Method: A sequential mixed methods study was conducted. Quantitative data were collected first through an online survey distributed via WhatsApp to nursing directors at private hospitals, using the Indonesian version of the stigma scale. A total of 195 healthcare professionals (184 medical, 9 non-medical) participated. High-stigma participants were interviewed. Data were analyzed using descriptive statistics, ANOVA, and hierarchical regression. Thematic analysis was used for qualitative data. Results: Participants included nurses (84.5%), midwives (5.2%), doctors (5.7%), and non-medical professionals (4.6%). Probable COVID-19 status positively correlated with profession type (r=0.144, p<0.047). Stigma scores negatively correlated with COVID-19 testing type (r=-0.147, p<0.042) and working tenure (r=-0.147, p<0.041). Hierarchical regression showed that working tenure, probable status, and testing type predicted stigma. Profession type and confirmed cases did not predict stigma. Qualitative findings indicated junior nurses (1-2 years tenure) experienced stigma, especially when visiting testing facilities and having probable status. The negative correlation between tenure and stigma was consistent in qualitative data. Conclusions: Working tenure, probable COVID-19 status, and testing type are associated with stigma among healthcare practitioners. Recommendation: Future studies should use more rigorous designs and validated COVID-19-specific tools.

Keywords: *COVID-19 test; healthcare practitioners; mixed method; stigma.*

ABSTRAK

Latar Belakang: Tenaga kesehatan menghadapi berbagai tekanan psikologis selama pandemi Covid-19, termasuk stigmatisasi. Tujuan: Memahami faktor-faktor yang terkait dengan stigma sosial terhadap tenaga kesehatan yang merawat pasien Covid-19. Metode: Penelitian ini menggunakan metode campuran, dengan pengumpulan data kuantitatif dilakukan sebelum data kualitatif. Studi dilakukan secara potong lintang, dengan survei online yang disebarkan melalui WhatsApp kepada direktur keperawatan di beberapa rumah sakit swasta menggunakan skala stigma versi Indonesia. Dari 195 tenaga kesehatan yang dilibatkan, 184 adalah tenaga medis dan 9 non-medis. Peserta dengan skor stigma tinggi diwawancarai lebih lanjut. Analisis data dilakukan menggunakan statistik deskriptif, ANOVA, dan regresi hierarkis untuk data kuantitatif serta analisis tematik untuk data kualitatif. Hasil: Peserta terdiri dari perawat (84,5%), bidan (5,2%), dokter (5,7%), dan tenaga kesehatan non-medis (4,6%). Status probable berkorelasi positif dengan jenis profesi (r= 0,144, p< 0,047), sementara skor stigma berkorelasi negatif dengan jenis tes Covid-19 (r= -0,147, p< 0,042) dan masa kerja (r=-0,147, p<0,041). Regresi hierarkis menunjukkan faktor prediktif stigma adalah masa kerja, status probable Covid-19, dan jenis tes Covid-19, sementara jenis profesi dan kasus terkonfirmasi Covid-19 bukan prediktor yang baik. Temuan kualitatif menunjukkan sebagian besar peserta yang diwawancarai adalah perawat junior dengan masa kerja 1-2 tahun yang mengalami stigma saat tes di rumah sakit. Kesimpulan: Masa kerja, status probable Covid-19, dan jenis tes Covid-19 adalah faktor-faktor yang terkait dengan pengalaman stigmatisasi di kalangan tenaga kesehatan. Rekomendasi: Penelitian mendatang sebaiknya dikembangkan lebih mendalam dengan desain studi yang lebih ketat dan alat khusus COVID-19 yang telah divalidasi.

Kata kunci: metode campuran; stigma; tenaga kesehatan, tes COVID-19.

INTRODUCTION

Covid-19 pandemic conveys many psychological effects along two years specifically among healthcare professionals (HCP) who take significant role in facing this disease. Healthcare worker is group of people whose often stigmatized in pandemic (Mohindra et al., 2021). It is significant fact that during pandemic healthcare worker were admired as public heroes at government or community advertisement or mass media (Taylor et al., 2020). In the contrary, they experienced double burden which is exhaustion in caring full capacity of covid patients and societies' stigmatization at the beginning of pandemic (Mostafa et al., 2021).

General population believed that healthcare professional is the most potential infection spreading's source (Bagcchi, 2020). Thus, societies' groundless beliefs which tend to stigmatization extend to drivers of ambulances, laundry staffs, Covid-19 patients' family members, and Covid-19 survivors.

Stigmatization to HCP in Indonesia was being published in mass media during 2020, nine months after first confirmed case in Jakarta Indonesia. The most memorable stigmatization for HCP especially nurse profession was the rejection of nurse's corpse for burial in her family hometown. Rejections came due to panic response as died nurse with Covid-19. The stigma experienced by health professionals was in act of refusal by surrounding community such as neighborhood or the nearby rented or boarding house. Healthcare professionals are the most susceptible to Covid-19 and it is inevitable (Tosepu, Effendy, & Ahmad, 2020; Wibowo, 2020). The stigma associated with Covid-19 that developed in local communities who has high case rate in Indonesia, threatening those Covid-19 positive and the health professionals (Sulistiadi et al., 2020).

Literature studies emphasize the imbalance and mismatch between stigma mitigation, prevention, and containment of COVID-19. Many studies have been done for investigating stigma as the effect of it to psychology well-being for HCP themselves. This study aims to explore factors associated towards healthcare practitioners who deal with Covid-19 patients quantitatively and examine the exploration narrative result qualitatively.

METHOD

This current study used mixed-method study using a sequential explanatory design-participant selection model established in two steps. Quantitative conducted priorly to qualitative. The qualitative step was highlighted and connected to the quantitative result. the determination of second step is to purposefully select participants to best address the qualitative research questions (Creswell, 2018). The deliberation for using mixed methods were to get a comprehensive and more detailed phenomena within the participants in the target population

This cross-sectional study conducted by internet-based survey. Modified stigma scale, Explanatory Model Interview Catalogues, was used for collecting data which has Bahasa version with respectable internal validity and reliability. We recruited 193 respondents at the beginning of this study with convenience sampling technique quantitative step. This study's respondents were healthcare worker who taking care of COVID-19 patients in some private hospitals in Indonesia. The inclusion criteria were healthcare working taking care of COVID-19.

For qualitative data, we utilized phenomenological design, selected participants were respondents with an EMIC-stigma score of more than 21. Those willing participants interviewed were all 11 nurses. Once stigma score was established, collected the qualitative data. This current study utilized structured interview guideline for 45-60 minutes interview through online platform that allowed interviewer observed respondents' facial expression. We did content analysis from

The quantitative data were collected using a modified questionnaire from the Stigma Scale of the Explanatory Model Interview Catalog (EMIC Stigma Scale). This current study instrument was employed subsequently obtaining consent from the original author. The questionnaire was formerly developed to measure social stigma related to disease such as leprosy and tuberculosis. The questionnaire had been translated into the Indonesian language (De Korte, Vellacott, Pongtiku, Rantetampang, & Van Brakel, 2018). There were 14 items with four selections: yes, maybe, do not know, and no. there is only one item with a reverse score, item 2 (InfoNTD, 2020; Morgado et al., 2017). Every item valued on a four-point Likert scale; options range from three means yes, to zero means no. A total score of a stigma was sum up each respondents' items score. The highest score is 42, and the lowest score is zero. The higher the score obtained indicated the greater stigmatization act that perceived by respondents. There is no stigma categorization of the total score (InfoNTD, 2020; Morgado et al., 2017). The EMIC stigma scale was established thus, have respectable internal consistency and high item-total correlation (Chung & Lam, 2018). The current study instrument considered as reliable, with a Cronbach's Alpha value of 0.88. We collected quantitative data by compiling the survey through online form and distributing link by *WhatsApp's* to the director of nursing in 13 private hospitals in Indonesia. The quantitative data were collected in May 2020. Data were analyzed using descriptive statistics, correlation, one way ANOVA, and hierarchical regression, respectively. Qualitative data were studied using thematic analysis.

This research accepted ethical approval from the Mochtar Riady Institute for Nanotechnology (MRIN) ethical committee with Protocol No. 2005005-04 on 6th June 2020. Furthermore, this study received permission from hospitals directors as study settings. The consent has been given to all respondents, including authorization to use the respondent's data for publication.

RESULT

Quantitative results

Quantitative findings showed in four tables below (Table 1-4). Table 1 indicates that more than half of respondents are in early adult range (56%), has probable status on Covid-19 (59.1%), and having 1 to 3 years working tenure (54.4%). Moreover, greater majority of respondent has no confirmed status (88.6%), medical practitioners' (95%), and live in Jakarta. More than 60% of respondent live in rent house and got both Covid test (Antigen and PCR/ polymerase chain reaction). EMICS score stigma average founded 11.47 with 7.47 (SD).

Tabel 1. Distribution of characteristics of healthcare practitioners who deals with Covid-19 patients (N=193)

Variables	Frequency	%
Age		
17-25 y.o	100	51.8
26-35 y.o	70	36.3
36-45 y.o	17	8.8
46-55 y.o	6	3.1
< 55 y.o	0	0
Area of Living		
Jakarta suburb	165	85.5
Outside Jakarta	28	14.5
Probable status		
Yes	114	59.1
No	79	40.9
Confirmed status		
Yes	22	11.4
No	171	88.6
Covid testing		
Antigen rapid test	42	21.8
PCR swab	30	15.5
Both antigen and PCR swab	121	62.7
Work tenure		
< 1 year	37	19.2
1-3 year	105	54.4
> 3 year	51	26.4
Profession		
Medical	184	95.3
Non-medical	9	4.7
Type of housing		
Self-owned house	73	37.8
Non-self-owned house	120	62.2
Variable	Mean	±SD
Age	27.66	±6.65
Stigma EMIC score	11.47	±7.71

Table 2 Difference in confirmed status and in mean values of stigma score by socio-demographic characteristics of healthcare practitioners regarding Covid 19 (N=193)

Variables	Confirmed Status				Total Stigma Score			
	Yes (n= 22)	No (n=171)	χ	*p*-value	Mean	±SD	T/F	*p*-value
Age (years old)								
17-25	11	89	9.366	.053	12.62	±7.612	1.644	.165
26-35	6	64			10.41	±7.739		
36-45	3	14			9.88	±8.038		
46-55	1	4			11.00	±5.701		
< 55	1	0			0	0		
Area of living								
Jakarta suburb	19	146	.004	.951	11.58	±7.625	.405	.525
Outside Jakarta	3	25			10.56	±8.327		
Covid testing								
Type of testing								
Antigen rapid test	1	41	6.266	.044	14.02	±8.176	3.072	.049
PCR swab	2	28			10.30	±7.782		
Both antigen & PCR	19	102			10.88	±7.395		
Working Tenure								
< 1 year	7	30	3.830	.147	12.78	±7.476	2.349	.098
1-3 year	8	97			11.94	±7.999		
>3 years	7	44			9.55	±7.038		
Profession								
Medical	21	163	.001	.978	11.37	±7.672	.688	.408
Non-medical	1	8			13.56	±8.705		
Type of housing								
Self-owned	9	64	.101	.751	11.05	±7.492	.342	.560
Non-self-owned	13	107			11.73	±7.862		

Table 2 indicates there is significance difference in stigma score between covid testing (F= 3.072, $p < 0.05$). There is also significance different in confirmed status between Covid-19 testing (F= 6.266, $p < 0.05$). Thus, there is no significance difference in stigma score between the rests of the factors.

Table 3. Correlation between variables of healthcare practitioners regarding Covid 19 (N=193)

Variable	Work tenure	Probable status	Confirmed case	Profession	Covid testing	Stigma Score
Work tenure	1					
Probable status	.067	1				
Confirmed status	.039	.166*	1			
Profession	-.061	.116	.002	1		
Covid-19 testing	-.073	-.286**	-.178*	-.050	1	
Stigma score	-.147*	-.133	-.080	.060	-.147*	1

Table 3 indicates stigma score negatively correlated with two factors: working tenure (r = - .147) and covid testing (r = - .147). It is proved statistically, the higher stigma score correlated with the shorter working tenure, on the other hand the lower stigma score correlated with the longer working tenure. Covid testing was significantly correlated to stigma score in bivariate analysis and univariate analysis.

Table 4. Correlation between variables of health care practitioners regarding Covid 19 (N=193)

No	Variables	B	SE	β	t	*p*- value	R^2	ΔR^2
Step 1						.097	.024	.024
	Work tenure	-1.650	.823	-.144	-2.006	.046		

No	Variables	B	SE	β	t	*p*- value	R^2	ΔR^2
	Profession	1.868	2.619	.051	.713	.477		
Step 2						.005	.088	.064
	Work tenure	-1.651	.805	-.144	-2.050	.042		
	Profession	2.229	2.572	.061	.867	.387		
	Probable status	-2.813	1.157	-.180	-2.431	.016		
	Confirmed status	-2.027	1.731	-.084	-1.171	.243		
	Covid 19 testing	-2.061	.689	-.220	-2.991	.003		

Table 4 showed hierarchical regression result. The first model was statistically not significant (F = 2.361, p < 0.05) proposed working tenure and profession as the main variable. The second models consisting of three main variables was probable status, confirmed status, and covid testing types which statistically significant (F = 3.602, p <0.01) and accounted for 8.8 % of variance in clinical confidence. It is confirmed statistically that working tenure, confirmed status, and covid testing have association with EMIC stigma score.

Qualitative results

This current study found that majority of interviewed participants were nurses who working two years and had confirmed Covid-19 and underwent quarantine. Besides, majority of interviewed participants were living on rent house nearby hospital where they worked. The participants reflect some major stigma on their interview session.

Majority of the participants had been tested more than one Covid-19 testing according to the ministry of health regulation at that time.
"I got tested when our patient confirmed positive. I got tested both, rapid test and pcr swab"

"I got rapid test, since that time there was limited swab pcr logistic"

Participant experienced some difference act from other hospital worker while they went to testing facility and quarantine facility inside hospital.

"When ICU staffs passed by, it's whispering in the back, but you can hear it, when you buy food, buy this, they seem to be staring at me"
"We're walking at the hospital, where do you go for the test, why did someone avoid you".
"It's for sure, right, until it looks like we're dirty, disgusted, that's all"

Participant experienced rejection from the house-owner for those who live in renthouse and neighborhood.

"You can't back home here, okay. Then, you have to take a shower when you come home from work, because you're in the hospital, we don't know"

"The house-owner is afraid, afraid that we will go home with the virus, afraid that other residents are worried. Finally, our own ICU's doctor initiatively rented us other house for quarantine"

Participant who worked in hospital specifically accept only Covid-19 cases gives some reflection regarding probable cases.

"Because of everything into the red zone, so there is no separation, I enjoy it more, ma'am, because we are all exposed, we automatically become probable person, so it's even more comfortable."

Participant experienced that government health center officer also disclosed the PCR result.

"*My PCR swab data was sent to health center nearby my rent house. There is a medical officer in the area that has probable status data, including me. They disclosed my result to house-owner*."

DISCUSSION

This current study started at the very first beginning of the Covid-19 in Indonesia. May 2020 data collection was just three months after first two confirmed cases by Indonesia's government in March 2020. The Covid-19 situation was in high number of confirmed cases, limited information regarding Covid-19, and lacking protection tools. This current study found that associated factor in quantitative finding is in-line with qualitative finding in discussion part below. Quantitative finding showed that covid testing has significant difference and significant correlated to stigma. Moreover, working tenure and probable status are the other two factors that shown in regression result regarding association to stigma score.

Previous Ghana study found that profession type among frontline healthcare workers was not predictors to stigma toward them. That previous study is similar with this current study which might be due to most of the respondents were medical health care professional (Ampon-Wireko et al., 2022).

A previous Indian study case described health care workers were not allowed to enter their rented house, could not get a house on rent, utilized public transport, and were attacked while on duty in society (Cassiani-Miranda & ..., 2020). Moreover, a previous Indian study stated that little is known about stigma among healthcare workers themselves, which this current study found from content analysis in the qualitative phase. Other previous writings mentioned that this stigmatization of healthcare practitioners increases burnout among them (Muhidin et al., 2020).

This current study result regarding covid testing score is significantly difference in total stigma. This study has slightly not in line with previous Egyptian study that found no significance in stigma score between Covid-19 testing (Mostafa et al., 2021). Egypt study also used adopted instrument HIV-Berger scale stigma into respiratory disease while this current study used the adapted instrument from leprosy and Tuberculosis instrument. Then, other explanation would be the classification of testing categories, Egypt study used two categories (antibody and PCR swab) while this study used three categories (rapid test, PCR swab, and both tests). This current study's qualitative result revealed that participant also stigmatized when they were on testing facility inside the hospital. Participants experienced avoidance act from other hospital practitioners when they did Covid-19 testing.

This current study result showed that working tenure also significantly correlated to stigma score and associated to it. This current study result is in line with Indonesia's previous study toward stigma in Covid-19 in health care worker that stated majority of participants were less than five years (Yufika et al., 2021). During pandemic, all the HCP were shortage due to some practitioners are being quarantined. This condition tends to organize all HCP included the one to three years' experience.

This current study qualitative result several forms of stigmatization toward HCP during Covid-19. Living in non-self-owned home can be validated in qualitative findings. Participants experienced stigmatizing acts from neighborhood such as avoidance (Taylor et al., 2021) and disclosing Covid-19 testing result.

This study is limited to the HCP in private hospital and should be further investigated. Future study might be developed in-depth with more vigorous study designs, and validated COVID-19-specific tools. Certain limitations may prevent the generalizability of these study results. However, there are more studies in this last three year that developing tools for measuring stigmatization specifically for Covid stigma among healthcare practitioners that could be help for mitigating stigma mitigation and help center for reducing it (Rahmani et al., 2023; Tsukuda et al., 2022).

CONCLUSION

This current study found that associated factor in quantitative finding is in line with qualitative findings. Quantitative findings in this current study are complemented with the qualitative findings. Factors associated with HCP commonly note that stigmatization they faced befalls in the context of public situations (Dye et al., 2020). Fact that interviewed participants in this current study lived in rent house increase possibility them to interfered with the house-owner and nearby health center officers.

Quantitative findings in this current study are complemented with the qualitative findings. Factors associated with stigma score being explained more by the qualitative findings. stigma score being explained more by the qualitative findings. Those factors are Covid-19 testing, working tenure, and probable status. While qualitative findings explain that participant also stigmatized when they were on testing facility inside the hospital, and experienced stigmatizing acts from neighborhood.

RECOMMENDATION

This study is limited to the HCP in private hospital and should be further investigated. Future study might be developed in-depth with more vigorous study designs, and validated COVID-19-specific tools. Certain limitations may prevent the generalizability of these study results.

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