

ORIGINAL ARTICLE

## Perception, attitude and stigma of community pharmacists toward patients with mental disorders: a cross-sectional study

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### ABSTRACT

One of the potential barriers to providing pharmaceutical care services to patients with mental disorders is stigma. Therefore, this study aims to explore the perception, attitude and stigma of community pharmacists toward patients with mental disorders in Indonesia. A self-report questionnaire was used including a convenience sample of 1,878 Indonesian community pharmacists from January to March 2023. The regression analyses showed that the perception in confidence level was significantly affected by age (95% CL :0.468-0.851; p-value:0.003) and work experience (95% CL: 1.205-2.284; p-value :0.002). Furthermore, age also affected the attitude of the community pharmacists towards patients with mental disorders (95% CL: 0.705-0.985; p-value: 0.033). Gender and a history of mental illness in a family member or a close friend contributed significantly to social distance (95% CL: 0.584-0.937; p-value: 0.013 and 95% CL: 1.212-1.779; p-value: <0.001, respectively). However, the self-disclosure of pharmacists about mental disorders remained unfavourable. In conclusion, this study found that majority of respondents had good perception and a low level of stigma towards patients with mental disorders. Based on the results, the continuous promotion of mental health awareness and education is recommended. In addition, sharing the personal experiences of individuals with mental disorders is essential for reducing self-stigma. Further studies are required to support service development in this field.

### Key words:

stigma, perception; pharmacist; social media; mental health disorders

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## INTRODUCTION

In the last 10 years, there is a significant increase in the burden of mental disorders on a global scale due to the COVID-19 pandemic.<sup>1,2</sup> Medicine is the main treatment for mental diseases and patients with mental disorders have expressed a need for medication counselling from pharmacists.<sup>3-5</sup> However, studies for decades have reported that one of the potential barriers to providing pharmaceutical care services to patients with mental disorders is stigma.<sup>5-14</sup> The widespread acknowledgment of stigma towards mental disorders and individuals experiencing mental health issues showed its significance as an obstacle in finding support for mental health problems<sup>15</sup>.

Several studies have reported that stigma remains a problem in low-middle income countries, including in Indonesia.<sup>19,20</sup> Pasung, which is the practice of confining and restraining persons with mental disorders, serves as a particular evidence of the high stigma prevalent among Indonesians, specifically in rural areas.<sup>17,21</sup> Previous studies have also shown that stigma of Indonesian healthcare professionals, such as general practitioners and nurses, is high towards patients with mental disorders.<sup>20-22</sup>

In Indonesia, the existence of Healthcare and Social Security Agency (BPJS) scheme managed in 2014 led to the implementation of a task-shifting policy, which delegated health services to psychiatry patients at the primary level. Furthermore, BPJS Pharmacy and Referral Program (PRB) were launched in 2018, allowing psychiatry patients who receive treatment at tertiary health facilities to redeem the medications in community pharmacies.<sup>23,24</sup> However, a study reported that 87% of Indonesian community pharmacists felt they had low-middle knowledge about psychiatry,<sup>25</sup> and having a greater understanding of mental health was found to be linked with reduced stigma

towards those individuals with mental health problems.<sup>18</sup>

Exploring perception and stigma of Indonesian community pharmacists toward patients with mental disorders is an urgent need in the provision of mental health services. Previous studies about stigma of pharmacists towards patients with mental disorders were conducted in developed countries and before the pandemic. The promotion of mental health awareness during the recent pandemic and the sociocultural aspects of the Indonesian community could affect perception and stigma of pharmacists in Indonesia. Therefore, this study aimed to assess perception, attitude and stigma of pharmacists towards patients with mental disorders. This insight may help reduce stigma and discrimination, as well as improve the quality of pharmaceutical services.

## METHODOLOGY

### *Study Design, duration, setting*

A cross-sectional online survey was conducted with convenience sampling from January to March 2023. The survey was conducted over the official WhatsApp group of the Indonesian Pharmacist Organization across all provinces. Ethical approval was obtained from the Medical and Health Research Ethics Committee (MHREC), Gadjah Mada University, with number KE/FK/1554/EC/2022. The first page of the questionnaire included a description of the study and the objectives, eligibility criteria, estimated time required to complete the questionnaire, confidentiality, organization, and contact information. A written informed consent letter was also presented to respondents, which they signed as a prerequisite for participation. The inclusion criteria indicated that pharmacists must be working in community, either in a pharmacy, clinic, or primary health center, and legally registered to practice in Indonesia. The

survey questions were created and distributed using Google Forms, and respondents received continuing professional development points upon completion of the survey, and no reminders were sent.

### **Sample Size**

The total number of pharmacists in Indonesia is about 121,629 people. Due to the limited information on the number of pharmacists, 48,652 people, accounting for 40% were assumed.<sup>26</sup> The minimum required sample size in this survey was calculated using Slovin's formula with a margin error of 3%, and the result was 1,086 people.

### **Survey Questionnaire**

The questionnaire materials were adopted from a previous survey, with permissions obtained and were modified (36,37). The survey was translated into the Bahasa Indonesia by the Centre for Language Development (CILAD). It consisted of five sections that covered demographics, pharmacist's perception, knowledge of mental health, level of confidence in managing patients with mental disorders and stigma towards patients with mental disorders. The answers were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A version of the survey was reviewed by a board-certified psychologist and two community pharmacists. A pilot test was conducted on a sample of pharmacists (n=30) who did not participate in the main study to assess validity and reliability. The questionnaire's validity and reliability were confirmed with Cronbach Alpha ( $\alpha$ ) of 0.86. On average, the questionnaire took 10 minutes to complete.

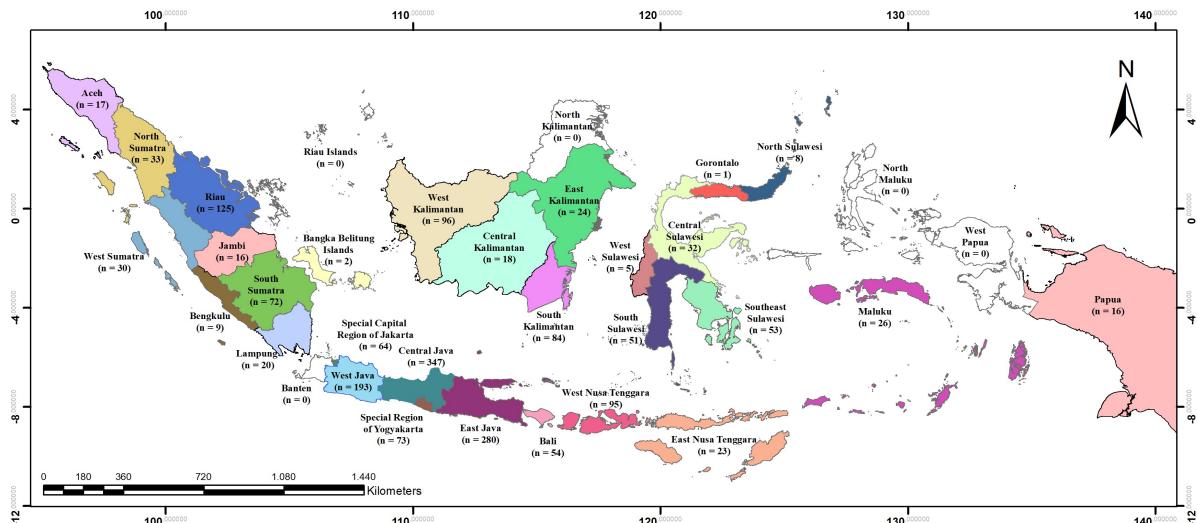
### **Data Analysis**

Basic demographic data were presented using descriptive statistics. Standard deviations and means were used to express continuous variables, while frequency and percentages were used to present categorical and numerical data. To create a composite picture of respondents who disagreed and agreed with the questions using a 5-point Likert scale, the scores for the first two columns (strongly disagree and disagree) were added to show the point of disagreement. Similarly, the scores for the last two columns (agree and agree) were added to show the point of agreement. Responses to the Likert scale, including perception of pharmacists and stigma of pharmacists towards patients, were also shown as means and combined to provide a global picture. Logistic regression was performed to measure the correlation of sociodemographic characteristics with the perception of comfort level, confidence in the management of mental disorders, and stigma towards patients with mental disorders.

## **RESULTS**

### **Sociodemographic characteristics**

In total, 1,881 Indonesian community pharmacists responded to the survey. Respondents who completed only sociodemographic questions were excluded, leaving a final sample of 1,878 from 29 out of 34 provinces in Indonesia. Figure 1 shows the distribution of respondents.

**Figure 1.** Provinces in which data were collected

The majority of respondents were female, worked in community pharmacy, and had less than 5 years of work experience, with percentages of 81.2%,

63.6%, and 49.3%, respectively. Only a minority, accounting for 0.7%, had mental disorders, as shown in Table 1.

**Table 1.** Characteristics of the respondents

Characteristic	N (%)
<b>Sex</b>	
Female	1525 (81.2)
Male	353 (18.8)
<b>Age</b>	
20-30 years old	994 (52.9)
31-40 years old	658 (35.0)
41-50 years old	180 (9.6)
>51 years old	46 (2.4)
<b>Community workplace</b>	
Pharmacy	1194 (63.6)
Clinic	309 (16.4)
Primary Health Care	375 (20.0)
<b>Experience work in community</b>	
< 5 years	926 (49.3)
5-10 years	733 (39.0)
> 10 years	219 (11.7)
<b>Personal History of Mental Illness</b>	
Yes	13 (0.7)
No	1767 (94.1)
Preferred not to answer	98 (5.2)
<b>History of mental illness in a family member/close friend</b>	
Yes	305 (16.2)
No	1460 (77.7)
Preferred not to answer	113 (6.0)

Characteristic	N (%)
<b>We believe that opinions and beliefs about mental disorders would affect the ability to provide PC to these patients</b>	
Definitely	417 (22.2)
Probably	691 (36.8)
Maybe	432 (23.0)
Not at all	223 (11.8)
Don't Know	115 (6.1)
<b>Social media ownership</b>	
Yes	1878 (100)
No	0
<b>User of Social Media Channels</b>	
*Respondents can choose more than one option	
Facebook (Meta Platforms, Inc)	1860
Instagram (Meta Platforms, Inc)	1252
Twitter (Twitter, Inc.)	998
Whats App Massenger	1878

***Perception and Community Pharmacists' Comfort Level in the Management of Mental Disorders***

About 74% of respondents agreed that mental disorders were not a source of shame, and nearly half had enough motivation, confidence, and interest to provide pharmaceutical care to patients with mental disorders, accounting for 49.5

%, 43.6%, and 46.8%, respectively. This study showed that respondents cited insufficient information on patients (44%) and a lack of training during undergraduate studies (40%). The majority of respondents agreed that handling patients with mental disorders was not only harder (61.8%) but more complex than other disorders, such as diabetes (62.7%), as shown in Table 2.

**Table 2.** Perception and level of comfort of community pharmacists in dealing patients with mental disorders (n = 1878).

Statement	Mean ( $\pm$ SD)	Disagree, N (%)	Neutral, N (%)	Agree,N (%)
<b>Perception of pharmacists in Managing Mental Disorders</b>				
(a) I find that patients with mental disorders easily approachable	2.8( $\pm$ 0.83)	674(36.0)	849(45.2)	355(18.9)
(b) Handling of patients with mental disorders is easier compared to patients with other diseases	2.3( $\pm$ 0.86)	1162(61.8)	584(31.1)	132(6.2)
(c) Mental illness is nothing to be ashamed of	3.9( $\pm$ 0.91)	125(6.6)	364(19.4)	1389(74.0)
(d) All patients with mental disorders are potentially dangerous to the people around them	2.7( $\pm$ 1.01)	807(43.0)	640(34.1)	431(22.9)
(e) I am not afraid of patients with mental disorders	3.1( $\pm$ 1.01)	336(17.9)	954(50.8)	588(31.3)

Statement	Mean ( $\pm$ SD)	Disagree, N (%)	Neutral, N (%)	Agree,N (%)
(f) Patients with mental disorders do not want to talk to a pharmacist about their mental health symptoms	3.04( $\pm$ 0.88)	446(23.9)	907(48.6)	514(37.6)
<b>Level of comfort of pharmacists in Managing Mental Disorders</b>				
(a) I find it easy to deal with relapse and nonadherence in patients with mental disorders	2.8( $\pm$ 0.82)	937(49.9)	768(40.9)	173(9.2)
b) I have an interest in providing pharmaceutical care to patients with mental disorders	3.4( $\pm$ 0.86)	218(11.7)	781(41.6)	879(46.8)
(c) I have enough knowledge on the pharmacotherapy of patients with mental disorders	2.76( $\pm$ 0.81)	649(34.7)	928(49.6)	292(15.6)
(d) I feel confident enough to provide pharmaceutical care to patients with mental health problems	3.37( $\pm$ 0.85)	395(12.6)	664(35.4)	819(43.6)
(e) I feel comfortable enough to provide pharmaceutical care to patients with mental health problems	3.3( $\pm$ 0.84)	256(13.5)	846(45.2)	776(41.3)
(f) There is enough motivation for me to provide pharmaceutical care to patients with mental disorders	3.4( $\pm$ 0.82)	182(9.8)	766(40.8)	930(49.5)
(g) I feel comfortable asking patients their reason(s) for using psychotropics	3.1( $\pm$ 0.88)	390(20.9)	851(45.6)	626(33.5)
(h) I feel comfortable discussing the symptoms of mental illness with patients	3.2( $\pm$ 0.85)	335(17.9)	867(46.1)	676(36)
(i) I received adequate education/training about mental health during my undergraduate pharmacy education	2.7( $\pm$ 0.95)	751(40.0)	728(38.8)	399(21.2)

### ***Stigma of Community Pharmacists Towards Patients with Mental Disorders***

Pharmacists showed lower levels of stigmatising attitudes in all categories analysed. However, pharmacists believed that mental disorders affected the daily lives of patients, accounting for 65.1%. In the case of self-disclosure, 35.7% showed

that they would disclose to friends and 34.4% to colleagues when diagnosed with mental disorders or received mental health treatment. Respondents were overall neutral with regard to both perception and stigma towards patients with mental disorders.

**Table 3.** Stigma Scale for Community Pharmacists towards Patients with Mental Disorders

<b>Statement</b>	<b>Mean (<math>\pm</math>SD)</b>	<b>Disagree, N (%)</b>	<b>Neutral, N (%)</b>	<b>Agree, N (%)</b>
Factor I: Social distance at professional pharmacy service				
If possible, I prefer to avoid administering and advising about medications to patients with mental disorders.	2.34(0.96)	1045(56.0)	647(34.5)	186(9.5)
If possible, I would rather avoid consultations with patients with mental disorders as much as possible.	2.33(0.95)	087(57.9)	602(32.1)	189(10.1)
If possible, I would rather avoid home visits for patients with mental disorders.	2.54(0.99)	910(48.5)	672(35.8)	296(15.8)
I think it is too much work to deal with patients with mental disorders.	2.5(0.95)	943(50.2)	686(36.5)	249(13.3)
I would rather be involved in the care of patients with physical illnesses than with mental illnesses.	2.8(0.97)	668(35.6)	801(42.7)	409(21.8)
I am afraid to administer and advising about medication for patients with mental disorders.	2.6(0.95)	873(46.5)	727(38.7)	278(14.8)
If a patient hands me a prescription that includes medications for mental disorders, I would try to avoid discussing his/her illness as much as possible.	2.4(0.97)	1053(56.1)	604(32.2)	221(11.8)
I find it difficult to deal with patients with mental disorders, particularly during busy hours.	2.7(1.0)	767(40.9)	724(38.6)	387(20.6)
Despite my principles as a health care provider, I react negatively to patients with mental disorders.	2.1(0.97)	1272(67.7)	464(24.7)	142(7.6)
I find it difficult to communicate with patients with mental disorders.	2.8(0.96)	633(33.7)	811(43.2)	434(23.1)
I am not worried about dealing with situations in which I receive prescriptions or medication records for mental disorders medications from patients. (R)	3.2(1.0)	430(22.9)	700(37.3)	748(39.8)

Statement	Mean ( $\pm$ SD)	Disagree, N (%)	Neutral, N (%)	Agree, N (%)
Factor II: Attitudes toward patients diagnosed with mental disorders				
I think that mental disorders affect the daily lives of patients.	3.7(0.97)	192(10.3)	463(24.7)	1223(65.1)
I think that patients with mental disorders are dangerous	2.4(0.95)	962(51.2)	686(36.5)	230(13.3)
I do not think that patients can recover from mental disorders.	2.1(0.92)	1259(67.1)	468(24.9)	151(8.0)
I think that patients with mental disorders are not capable of understanding their own illness.	2.9(0.96)	619(32.9)	729(38.8)	530(28.2)
I think patients with mental disorders are not capable of understanding and adhering to the suggested treatment regimen.	2.8(0.95)	776(41.3)	701(37.3)	401(21.4)
I think more than 50% of patients with mental disorders do not <b>work</b> hard enough to improve their own conditions.	2.8(0.97)	677(36.1)	760(40.5)	441(23.5)
I think patients with mental disorders have difficulty reintegrating into society.	3.1 (0.99)	544(29.0)	667(35.5)	667(35.5)
Factor III: Self-disclosure				
Unlike other diseases, if I had mental disorders, I would be able to tell my friends about it.	2.8(0.98)	671(35.7)	805(42.9)	412(21.4)
Unlike other diseases, if I had mental disorders, I would not be able to tell my family about it. (R)	2.9(1.0)	633(33.7)	691(36.8)	554(29.5)
Unlike other diseases, I would not be able to tell my colleagues that I was being treated for mental disorders. (R)	3.1(1.0)	495(26.3)	730(38.9)	653(34.4)
Unlike other diseases, if I had mental disorders, I would hesitate to seek the help of health professionals. (R)	2 (1.0)	1130(60.1)	498(26.5)	250(13.3)

Statement	Mean ( $\pm$ SD)	Disagree, N (%)	Neutral, N (%)	Agree, N (%)
Factor IV: Social distance in personal If a colleague of mine told me that he/she have mental disorders that has been well managed with drugs, I would still be able to work with him/her without any problems. (R)	3.6(0.91)	201(10.7)	562(29.9)	1115(59.4)
If a candidate has the most appropriate skills for the job, employers should hire a patient whose symptoms of mental disorders are well managed by medications. (R)	3.4(0.89)	228(12.2)	692(36.8)	958(51.0)
I would not mind if a patient with mental disorders lived next door. (R)	3.4(0.94)	292(15.6)	710(37.8)	878(46.7)
I would not want my children to work with a patient with mental disorders even if his/her symptoms are well- managed by medications	3.4 (0.99)	707(37.7)	760(40.5)	411(21.9)

A logistic regression was used to predict the correlation of perception and stigma of pharmacists based on the independent variables. The result showed that confidence level was significantly affected by age and work experience, as shown by p-values of 0.003 and 0.002, respectively. Age also affected attitude of

pharmacists towards patients with mental disorders, as shown by a p-value of 0.033. Additionally, sex and history of mental disorders of a family member or a close friend contributed significantly to social distance in personal relationships of pharmacists ( $p= 0.013$  and  $p= <0.001$ , respectively).

**Table 4.** Logistic regression

Variables	Perception						Stigma					
	Confidence		Level of Comfort		Social distance at professional pharmacy service		Attitudes towards patients with mental disorder		Self-disclosure		Social distance in personal	
	95% Cl	p-value	95% Cl	p-value	95% Cl	p-value	95% Cl	p-value	95% Cl	p-value	95% Cl	p-value
Geography (Province)	0.999-1.023	0.830	0.998	0.101	0.972	0.104	0.984	0.628	0.982	0.727	0.989	0.831
Age	0.468-0.851	<b>0.003</b>	0.581	0.097	0.790	0.662	0.705	<b>0.033</b>	0.719	0.148	0.827	0.676
			—	—	—	—	—	—	—	—	—	—
			1.023	1.003	1.010	1.012	1.014	1.014				
			1.046	1.162		1.051		1.131				

Variables	Perception						Stigma					
	Confidence		Level of Comfort		Social distance at professional pharmacy service		Attitudes towards patients with mental disorder		Self-disclosure		Social distance in personal	
	95% CI	p-value	95% CI	p-value	95% CI	p-value	95% CI	p-value	95% CI	p-value	95% CI	p-value
Work Experience	1.205	<b>0.002</b>	0.879	0.249	0.777	0.921	0.956	0.116	0.950	0.116	0.986	0.067
Sex	0.843	0.598	0.799	0.926	0.851	0.392	0.964	0.096	0.718	0.764	0.584	<b>0.013</b>
Personal History of Mental Illness	0.781-1.222	0.839	0.758	0.662	0.813	0.622	0.612	0.069	0.915	0.195	0.627-.994	0.044
History of mental illness in a family member/close friend	0.863	0.746	0.810	0.732	0.742	0.522	0.908	0.338	0.699	0.232	1.212	<b>&lt;0.001</b>
Social media-Instagram	0.899-2.222	0.134	0.819-2.046	0.269	0.547-1.164	0.864	0.681-1.323	0.702	0.436-1.091	0.201	0.384-1.779	0.053
Social media-facebook	0.515-2.205	0.865	0.902-4.636	0.087	0.588-4.996	0.324	0.353-1.548	0.423	0.512-3.200	0.597	0.717-3.060	0.288
Social media-Twitter	0.734-1.086	0.256	0.769-1.142	0.519	0.815-1.337	0.734	0.825-1.256	0.866	0.796-1.286	0.925	0.842-1.258	0.778

## DISCUSSION

This study aimed to explore perception and stigma of pharmacists toward patients with mental disorders in Indonesia. This study highlighted that community pharmacists had positive perception of providing pharmaceutical care to these patients, similar to observations made in Malaysia, Ghana, and UEA.<sup>36,44-46</sup> Furthermore, older and more experienced pharmacists felt more confident and exhibited positive attitudes toward providing pharmaceutical care to mental health patients. Previous studies showed that regular social interactions and direct contact between patients with mental disorders and pharmacists also improved the professional relationships.<sup>8,47,48</sup> The study by O'Reilly et al. (2015) reported that pharmacists with a personal history of mental disorders were more confident in providing medication counselling<sup>49</sup>.

The results of this study also indicated that Indonesian community pharmacists had a favourable stigma

toward patients with mental disorders. This result contradicts a previous study carried out before the pandemic that examined stigma in Indonesian community non-mental health professional healthcare settings.<sup>21</sup> Due to the pandemic and intensified mental health campaigns in the media, many Indonesian celebrities opened up about their history or condition of mental disorders and the importance of health awareness.<sup>42</sup> A previous study showed that the situation was considered 'taboo' before the pandemic.<sup>43</sup>

Due to the pandemic, physical distancing and lockdown policies have caused numerous individuals to confine themselves in their residences, thereby diminishing the chances for face-to-face engagements. Social media has become a preferred platform for expressing public opinions, perceptions, and attitudes towards various events or public health policies related to COVID-19.<sup>22,23</sup> The socio-economic implications of the pandemic have increased the demand for mental health services, showing the importance of

mental disorders as a public health concern.<sup>24</sup> Consequently, mental health awareness is extensively promoted using social media platforms around the world, including in Indonesia.<sup>48-51</sup>

The result of this study also showed that pharmacists tended to experience moderate levels of self-stigma regarding their personal history or treatment of mental disorders. Pharmacists seemed to be hesitant to openly discuss the condition with colleagues and friends. Self-stigma is often managed by individuals who select to keep mental disorders a secret, effectively concealing the associated shame. A powerful method for combating stigma and addressing this sense of humiliation is disclosure, which implies opening up about an individual psychiatric background to others.<sup>50</sup> Self-disclosure can also play an important role in reducing stigma and encouraging individuals to obtain help for mental health issues at an earlier stage.<sup>51</sup>

Gender and history regarding mental disorders of a family member or close friend of pharmacists significantly contributed to social distance towards patients with mental disorders. This result is consistent with previous studies indicating that exposure to mental disorders has significantly influenced attitudes toward individuals with mental disorder.<sup>17,52</sup> Increased familiarity with these conditions is associated with a reduced likelihood of stigmatizing or avoiding those who suffer from mental health problems. The result of this study was also supported by Schroeder et al. (2021), who reported that females had lower perceptions of stigma compared to males.<sup>39</sup> However, the majority of respondents were quite neutral with respect to their perception and stigma level.

The health system in Indonesia is heavily decentralised with great geographic, cultural, and socio-economic diversity across the archipelago.<sup>38</sup> This

diversity provides an opportunity to examine the issue. In this study, geographical location did not affect the level of perception in level of comfort, confidence and stigma of pharmacists in the management of mental health care. This result differs from previous studies conducted in Mozambique and the United States, where individuals residing in rural community typically exhibit higher levels of stigmatization towards patients with mental disorders compared to those living in urban areas.<sup>39,40</sup> However, respondents in those studies had varying educational and professional backgrounds. According to previous studies, low education levels contribute to stigma surrounding patients with mental disorders.<sup>40,41</sup> The result suggested that geographical location may not significantly impact stigma, provided respondents share similar educational backgrounds, professions, and workplaces.

## LIMITATION

This study has some limitations due to social desirability bias and low response rates. Social desirability bias may have influenced responses because personal information about pharmacists surveyed was collected, resulting in many neutral responses provided by respondents.<sup>53</sup> Disclosing private information may have also caused respondents to feel apprehensive regarding participation in this study. However, this survey could be a benchmark for similar studies in the future.

## RECOMMENDATION

In conclusion, this study provided a first insight into perception, attitude and stigma of pharmacists in the provision of care to patients with mental disorders in Indonesia. The results showed that pharmacists had a favourable view of the role in mental health care and a positive

stigma towards patients with mental disorders, although self-disclosure remained unfavourable. Furthermore, this study showed the importance of promoting mental health awareness and education even after the end of COVID-19 pandemic. Sharing the personal experiences of individuals with mental disorders was crucial in reducing self-stigma. Further studies were required to support the development of services in this area.

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