Analyzing Utilization of Mental Health Services for National Health Insurance Participants in Indonesia

Rizqi Habiibah Rahmah[1]✉, Fitri Indrawati[1], Viknesvaran Palaniandy[2]

[1]Faculty of Medicine, Universitas Negeri Semarang, Indonesia
[2]Pejabat Kesihatan Daerah Kerian, Perak, Malaysia

Article Info

Abstract

Utilization of mental health services in Indonesia is still low in rates, while the need for mental care services is relatively high. Poor mental conditions will affect individuals in deploying their abilities or potential, leading to daily struggles to cope with. Currently, the government is attempting to grant access to mental health services with the National Health Insurance (NHI) system in primary, secondary, and tertiary services. Implementing the NHI policy is expected to escalate the community's access to mental health. Since NHI was implemented in 2014, no one has seen how NHI participants actively participate in mental health services. This study will reveal how the participants utilized NHI mental health services in 2020. This quantitative study used a nested case-control design to take secondary data on Social Health Insurance Administration Organization (BPJS Kesehatan) Sample Data for 2015-2020. The bivariate analysis results using the chi-square test point out a significant relationship between age, marital status, First Level Health Facilitytype, participant segmentation, with the utilization of mental health services. Meanwhile, the multivariate analysis using the logistic regression test results demonstrates that age is the most influential independent variable in utilizing NHI mental health services, specifically the unproductive age group (p-value < 0.001).

INTRODUCTION

Mental health is a part of welfare that must be guaranteed under Pancasila and the 1945 Constitution of the Republic of Indonesia (Indonesian Government, 2009). Ideal health includes physical, mental, and social states—not limited to the absence of disease or disability (WHO, 1948). Based on Law No. 36 of 2009 on Health, social health insurance encourages participation from everyone (Department of Health of the Republic of Indonesia, 2009). Ideal health requires optimal efforts from the community (Detels et al., 2015). Speaking of mental issues, this objective becomes more urgent. Various phenomena have shown the importance of this health type.

Mental health is the third objective of the Sustainable Development Goals (SDGs). We must "ensure a healthy life and improve welfare in all age levels". The ideal mental state is when an individual knows his ability or potential and believes that he manages all pressures in daily life. In addition, the individual can work productively and contribute to the surroundings. Mental health has been named second in the development, so it must be more elaborated and campaigned. The Indonesian government has a target of achieving increased community mental health efforts by 2024, namely that 90% of the population aged ≥ 15 years with a risk of mental health disorders receive screening and also sufferers of mental

disorders receive health service facilities.

Pre-pandemic, in 2019, an estimated 970 million people in the world were living with a mental disorder, 82% of whom were in LMICs (Low and middle-income countries). Between 2000 and 2019, an estimated 25% more people were living with mental disorders, but since the world's population has grown at approximately the same rate the (point) prevalence of mental disorders has remained steady, at around 13%. (Institute for Health Metrics and Evaluation, 2019).

Utilization of mental health services rates in Indonesia is still low, while the need for mental care is relatively high. Indonesia has a treatment gap in patients with CMD over 15 years. Only 9% of patients received mental health services from health workers (Health Research and Development Agency, 2018). Ironically, Indonesia has a prevalence of people with mental disorders is 1 in 5, meaning that around 20% of the population has the potential for mental disorders. The number of mental disorders in Indonesia has increased. Based on Basic Health Research Data (Riskesdas) in 2013, the prevalence of mental disorders in Indonesia was 1.7 per 1000. This percentage means that around 25% of the population has mental disorders (Ministry of Health, 2013). According to Fundamental Health Research Data 2018, 300,000 people, or seven per thousand people, have psychiatric disorders (Ministry of Health, 2018).

Stigma has been identified as a significant barrier to the demand for mental health services worldwide. Stigma is "a process involving social labeling, segregation, stereotype awareness, stereotype support, prejudice, and discrimination—in which social, economic, or even political power is exercised to the detriment of members of a social group". There are multiple types of stigma, such as anticipated stigma, experienced stigma, internalized stigma, stigma perception, stigma support, and treatment stigma (Clement et al., 2015). Stigma and discrimination in LMICs lead to widespread human rights violations against persons with mental and psychosocial disabilities. This would act as a barriers to the utilization of mental health services (Drew N et al., 2011).

Before National Health Insurance program held by BPJS Kesehatan, financing for mental health services was based on fee for service (out of pocket), with the existence of health insurance in a country, it will increase the utilization of health services for outpatient and inpatient services. The utilization of health services impacts the number of claim ratios issued by the Social Security Agency on Health (BPJS Kesehatan) to provide health services for participants. Contextual and individual characteristics influence the utilization. Individual characteristics are divided into predisposing, enabling, and need factors.

The government tries to grant access to mental health services with the NHI system in primary, secondary, and tertiary services. Law No. 18 of 2014 on Health states that mental health campaign is integratively carried out through promotive, preventive, curative, and rehabilitative approaches. NHI policy is expected to escalate access of the public to mental health services.

Since initially NHI was implemented in 2014, the utilization of mental health services by the participants was not able to be visualized clearly. Thus, this study proposes to be a base for aligned topics, offering information regarding the use of mental health services especially for policymakers. Doing so is expected to increase accuracy in improving and planning mental health service programs to being better. This study also promotes mental health services to the public by highlighting the importance of maintaining mental health and using BPJS Kesehatan for the issue.

Based on previous studies analysis of the utilization of health services, it was revealed that the relationship between the need factor with the utilization of health services was always consistent (Angst et al., 2010; Burnett-Zeigler et al., 2012; Roberts et al., 2018). There was a tendency for the utilization of health services to be higher in individuals with the following categories: female, single, and higher education level (Anderson et al., 2013; Iza et al., 2013; Roberts et al., 2018). However, research on health information as a variable found that mental health information had a stronger relationship than mental health needs (Graham et al., 2017).

METHOD

This study was a quantitative study with secondary data. The population in this study were all NHI participants in the 2015-2020 data of BPJS Kesehatan, with a nested case-control design—thus, it was categorized as a retrospective cohort study (Hung et al., 2015). This study was carried out by taking data on services in 2020, specifically on using health services and patients with mental diseases and behavior with ICD-10 code (F00-F99). Further analyses were executed in November 2022-January 2023.

Case sampling used a total sampling technique for participants who did not utilize mental health services but were diagnosed with mental and behavior disorders with the ICD-

10 code (F00-F99) in 2020. Meanwhile, control sampling used the simple random sampling technique for NHI participants who used mental health services in 2020.

In this study, the researchers set the following inclusion criteria Indonesian residents who are registered with BPJS Kesehatan (included in the 2015-2020 BPJS Kesehatan sample data participation with a history of service in 2020), patient data as a complete sample of (participant number, service date, poly visit, age (date of birth), gender, place of residence, sample year, and participation status) are participants who use a mental polyclinic for control sample criteria, and participants who have a diagnosis of mental illness but do not utilize mental health services for the criteria in the case sample. Meanwhile, the exclusion criteria are incomplete participation data, the participants concerned have dead participation status, inactive participation status, and participants aged less than two years.

This study proposed two variables, namely independent and dependent. Independent variable consists of age, sex, marital status, type of First Level Health Facility, and participant segmentation. Meanwhile, the dependent variable is the utilization of mental health services. Data analysis applied univariate, bivariate, and multivariate analysis. Bivariate analysis used the Chi-Square test, while multivariate analysis used the logistic regression test. The data were interpreted based on the significance value (p-value). In addition, the multivariate analysis used a logistic regression test with backward LR to find the best regression model where the variables that enter the multivariate analysis are variables with a p-value < 0.05. The most dominant variables were observed from the results of multivariate analysis with the smallest p-value and an immense wald value. This research has obtained ethical clearance from the Department of Public Health Ethics Committee, Semarang State University, No. 130/KEPK/EC/2023.
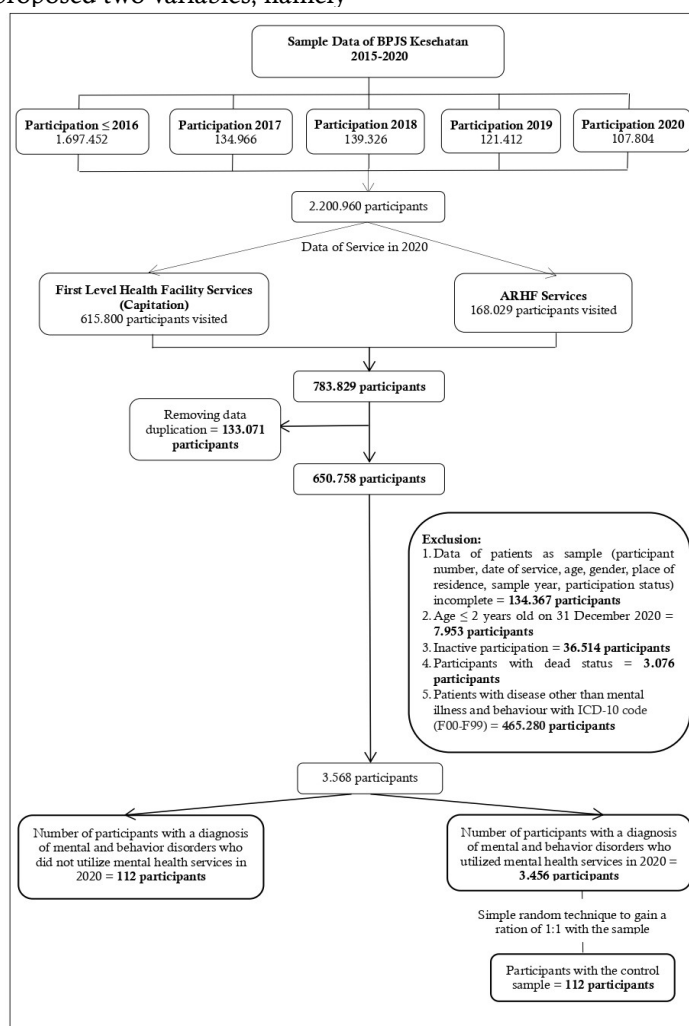

Chart 1. The flow of Data Collection from Sample Data of BPJS Kesehatan in 2015-2020 with Nested Case-Control Design

RESULT AND DISCUSION

Based on the univariate analysis in Table 1, 224 NHI participants became the sample of this study. The characteristics are age, sex, marital status, First Level Health Facility type, and participant segmentation. The data demonstrate that the sample is dominated by males (53,4%) than females (46,4%). About 69,2% of participants are in the productive group (15-64 years old), while the rest 30,8% (> 15 and > years old) are in the unproductive group. Participants with a status of married are 51,3%, divorced are 8,9%, and unmarried are 39,7%. Regarding First Level Health Facility type, participants choosing Public Health Centres are 50,4%, Primary Clinics 26,8%, and General Practitioners 22,8%. Furthermore, regarding participation segmentation based on contribution sources borne by the government or self-financed, participations with Assisted Contribution are 53,6%, and those without Assisted Contribution are 46,4%.

Table 1. Univariate Analysis of Utilization of Mental Health Service in NHI

Variables	Total (n)	Percentage (%)
Age		
Unproductive	69	30,8
Productive	155	69,2
Sex		
Male	120	53,6
Female	104	46,4
Marital Status		
Married	115	51,3
Divorced	20	8,9
Unmarried	89	39,7
First Level Health Facility Type		
Public Health Centre	113	50,4
Primary Clinic	60	26,8
General Practitioner	51	22,8
Participation Segmentation		
Assisted Contribution	104	46,4
Without Assited Contribution	120	53,6

Table 2 demonstrates the bivariate analysis results using the chi-square test. This analysis proposes determining the relationship between the dependent and independent variables. This study's bivariate analysis revealed the relationship of independent variables: age, sex, marital status, First Level Health Facility type, and participation segmentation. Table 2 shows four variables related to the utilization of mental health services: age, marital status, First Level Health Facility type, and participation segmentation. Meanwhile, sex is the only independent variable with no relationship with the use of mental health services.

Based on the age category, the proportion of participants who did not take advantage of mental services shows a similar result, namely 50%. The chi-square test results indicate a significant relationship between age and utilization of mental health services with a p-value < 0.001 and an OR value of 7.615 (Cl 3.832 - 15.132). These statistics indicate that participants in the nonproductive age group are 7.615 times more at risk of not taking advantage of mental health services than participants in the productive age group. The unproductive ones tend to depend on other people to meet their needs. Young people tend to ignore the mental health of unproductive family members, such as the elderly, because young people think that the elderly cannot produce anything worthwhile. The elderly need support from family members through attention and affection. If older people do not receive this support, they will feel lonely and useless and experience depression (Indahsari et al., 2021). Speaking of dependence, a similar phenomenon is also found in children. Children are said to depend on adults in living their lives. Thus, they frequently cannot choose the treatment they get. During adolescence, many

Table 2. Bivariate Analysis of Utilization of Mental Health Service in NHI

Variables	Utilization of Mental Health Services				p Value	OR	(95% CI)
	No		Yes				
	n	%	n	%			
Age							
Unproductive	56	50	13	11,6	<0,001**	7,615	3,832 - 15,132
Productive	56	50	99	88,4			
Sex							
Male	59	52,7	61	54,5	0,893	0,931	0,550 -1,574
Female	53	47,3	51	45,5			
Marital Status							
Married	43	38,4	72	64,3	0,005*	2,247	1,277 - 3,953
Divorced	18	16,1	2	1,8	0,014*	0,149	0,033 - 0,682
Unmarried (ref)	51	45,5	38	33,9			
First Level Health Facility Type							
Public Health Centre	50	44,6	63	56,3	0,016*	2,310	1,166 - 4,577
Primary Clinic	29	25,9	31	27,7	0,085	1,960	0,911 - 4,214
General Practitioner (ref)	33	29,5	18	16,1			
Participation Segmentation							
Assisted Contribution	69	61,6	35	31,3	<0,001**	3,530	2,033 - 6,131
Without Assisted Contribution	43	38,4	77	68,8			

** = p-value < 0,001
* = p-value < 0,05

biological, psychological, and social changes are more prominent. Physical maturation generally occurs faster than psychological ones, specifically regarding psychosocial features (Huang et al., 2007).

Based on the sex category, the proportion of participants who did not take advantage of mental services shows a slight difference; male participants were 52.7%, while female participants were 47.3%. The chi-square test result demonstrates a p-value of 0.894, indicating no significant relationship between sex and utilization of mental health services. These results are inconsistent with research that states that sex has a significant relationship with the utilization of mental health services. Overall, women have a higher utilization rate of mental health services. Among people who are not depressed, women are significantly more likely to use mental health services than men. These findings indicate that men prefer to delay seeing a doctor because of mild mental health problems but will seek help after the problem gets more severe (Smith et al., 2013). Globally, men are 1.8 times more likely than women to commit suicide. This disproportionately higher risk of suicide is often associated with men being more likely to seek help for mental health problems. Men tend to be reluctant to use mental health services compared to women (Chang, Yip, & Chen, 2019; World Health Organization, 2017).

Based on the marital status category, unmarried individuals have the highest percentage of participants who did not take advantage of mental services (45.5%). The chi-square test results point out a significant relationship between the utilization of mental services for married participants compared to those unmarried, with a p-value of 0.005 and an OR value of 2.247 (Cl 1.277 - 3.953). These statistics indicate that participants with married status are 2.247 times more at risk of not utilizing mental health services than participants with unmarried status. Meanwhile, divorced participants have a p-value

of 0.014 and an OR value of 0.149 (Cl 0.033 - 0.628). These statistics indicate a significant relationship between divorced people's utilization of mental health services compared to single. OR < 1 puts the divorce status as a protective factor so that unmarried participants are more at risk of not utilizing mental health services than divorced individuals. These results do not align with research stating that married respondents have a higher tendency to make outpatient visits to mental health services (Pandey et al., 2019). However, another study states that Indonesian people who are married, male, educated, work, have a high income, and have health insurance tend to have a lower prevalence of depression (Anggana et al., 2022). There is also research that states that when participants do not have a family, they will think more about their health and there is a poor lifestyle after divorce to increase the utilization of health services (Febri, 2018; Wahyu, 2017).

Based on the First Level Health Facility type, the highest percentage of participants who did not take advantage of mental services is those who visited the Public Health Centre (44,6%). The chi-square test results show a significant relationship between the utilization of mental health services in participants with the two types of First Level Health Facility, namely Public Health Centres and General Practitioners, with a p-value of 0.016 and OR 2.310 (Cl 1.166 - 4.577). These statistics indicate that participants with the Public Health Centre for First Level Health Facility are 2.310 times more at risk of not taking advantage of mental health services. Meanwhile, individuals with Primary clinics such as First Level Health Facility do not have a significant relationship with general practitioners in utilizing mental health services. Many Public Health Centers are scattered in sub-district or district working areas, their locations are easy to reach for Participants, and because of the influence of health insurance policies and government policies, NHI participants choose their type of health to the Public Health Center (Radito, 2014). Even though the

Table 3. Analysis Results of Logistic Regression Multivariate

Variables	B	Wald	p Value	Exp(B)	(95% CI)	
					Lower	Upper
Age						
Unproductive	1,923	25,626	< 0,001	6,844	3,250	14,412
Productive						
Marital Status						
Married	-0.990	7,947	0,005	0,371	0,187	0,739
Divorced	1,634	3,731	0,053	5,125	0,976	26,900
Unmarried						
First Level Health Facility Type						
Public Health Centre	-1,209	7,747	0,005	0,298	0,127	0,699
Primary Clinic	-0,736	2,314	0,128	0,479	0,186	1,236
General Practitioner						
Participation Segmentation						
Assisted Contribution	1,117	10,580	< 0,001	3,055	1,559	5,987
Without Assisted Contribution						
Constant	0,171					

Logistic regression equation:

y = 0,171+*1,923(age)-0,990(marital_status(1))+1,634(marital_status(2))-1,209(First Level Health Facility_Type(1))-0,736 (First Level Health Facility_Type (2))+1,117(participation_segmentation)*

Individual probability formula:

$$p = \frac{1}{1 + \exp(-(y))}$$

Table 4. Probability of Not Utilizing Mental Health Services under Any Circumstances

Situation	Variables				Probability
	Age	Marital Status	First Level Health Facility Type Type	Participation Segmentation	
1	Unproductive age	Unmarried	General Practitioner	Assisted Contribution	96%
2	Productive age	Unmarried	General Practitioner	Assisted Contribution	78%
3	Unproductive age	Married	Primary Clinic	Assisted Contribution	82%
4	Unproductive age	Divorced	Primary Clinic	Assisted Contribution	98%
5	Unproductive age	Unmarried	Primary Clinic	Assisted Contribution	92%
6	Productive age	Married	Public Health Centre	Without Assisted Contribution	12%
7	Productive age	Married	Primary Clinic	Without Assisted Contribution	17%
8	Productive age	Married	General Practitioner	Without Assisted Contribution	31%
9	Unproductive age	Unmarried	Public Health Centre	Assisted Contribution	88%
10	Unproductive age	Unmarried	Public Health Centre	Without Assisted Contribution	71%

majority of First Level Health Facility are owned by Public Health Centers, not all Public Health Centers in Indonesia have mental health services due to the lack of trained and competent human resources in mental health. Therefore, there were only a few participants with psychiatric complaints who visited the Public Health Center.

Based on the participation segmentation category, the result of the highest proportion of participants who did not take advantage of mental health services is the participations with Assisted Contribution (61.6%). The chi-square test results demonstrate a significant relationship between participation segmentation and the utilization of mental services with a p-value < 0.001 and an OR value of 3.350 (Cl 2.033 - 6.131). These statistics indicate that participations with Assisted Contribution were 3.350 times more at risk of not utilizing mental health services than without Assisted Contribution participants. This finding aligns with a study by Trisnantoro (2015), which states that the participations with Assisted Contribution group demonstrates low utilization of health services. The fact was that the without Assisted Contribution participants were aware of being enrolled in the NHI program. In addition, some already know the risks of health costs that will be incurred if they do not register as NHI participants. The result follows a study by Brodjonegoro (2015), explaining that adverse selection was carried out on PBPU participants in the without Assisted Contribution category. It was said that they only registered themselves when sick and needed expensive health services and did not pay dues again after they were healthy. Utilization management can detect the existence of a moral hazard, which is the possibility that someone acts dishonestly in insurance transactions, for example, the person enrolls in the NHI program because he already has a disease that costs a lot of money and requires health services (Thabrany et al, 2000).

Analysis results in Table 3 demonstrate that age, marital status, First Level Health Facility type, and participation segmentation have a significant relationship with the utilization of mental health services. The most influential variable is age by p-value < 0,001 and wald value of 25,626. OR age value is 6,844, implying that unproductive individuals are 6,844 at more risk of not utilizing mental health services.

CONCLUSION

In this study, some variables have a relationship with participants' utilization of NHI mental health services in 2020. The related fac-

tors are age, marital status, First Level Health Facility type, and participation segmentation, in which the p-value is < 0,05. The most influential variable is age; the unproductive group is relatively at higher risk of not utilizing the offered service.

This study possesses some limitations, specifically in terms of sample data. Data in this recent work have many variables, yet only some were selected and analyzed. In addition, the data were from 2020, so some changes might be revealed in 2023. Sample data for a study can only be used in one year of service. The advantage of this research is that no one has researched the utilization of mental services using BPJS Health data.

Departing from the findings, the researchers recommend that the Ministry of Health take more comprehensive steps to deal with mental health. One of the steps to manifest is through assessment efforts based on healthy family indicators, provision of mental health service facilities, and education starting at the elementary school level. The results of this recent work also suggest a policy issuance concerning those who want to marry. Ideally, they must be obliged to take parenting lessons to maintain good family mental health, especially regarding children's treatment, at that social unit. Eventually, the children can become young people who care about the whole family's mental health.

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