Exploration of Coverage, Opportunity and Barriers in Providing Mental Health Service in Public Health Centres in Denpasar, Bali

Perspectives of Stake Holders and Community Health Workers

PUTU ARYANI

INDONESIA

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KIT Health (ROYAL TROPICAL INSTITUTE)

Vrije Universiteit Amsterdam

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A thesis submitted in partial fulfilment of the requirement for the degree of Master in International Health

By
Putu Aryani
Indonesia

Declaration:
Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.
The Thesis "Exploration of Coverage, Opportunity and Barriers in Providing Mental Health Service in Public Health Centres In Denpasar, Bali: Perspectives of Stake Holders and Community Health Workers" is my own work.

Signature: 

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LIST OF ABREVIATION

ADHD : Attention Deficit Hyperactivity Disorder
CHWs : Community Health Workers
DALYs : Disability-Adjusted Life Years
FGD : Focus Group Discussion
GP : General Practitioner
IDIs : In-Depth Interviews
Jumantik : Juru Pemantau Jentik (Indonesian term of community health workers who work on larva observation and control in households)
KIT : Koninklijk Institute voor de Tropen (Royal Tropical Institute)
LMICs : Lower-middle income countries
MH : Mental Health
mh-GAP : mental health gap action program
mh-GAP-IG: mental health gap action International Guideline
MHS : Mental Health Service
PHC : Public Health Centre
PM : program manager
PI : Principal Investigator
WHO : World Health Organization
Wonca : World Family Doctors Caring for People
YLDs : Year Life with Disability
YLL : Year of Life Lost due to Premature Mortality

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ABSTRACTS

Background: Recently WHO have promoted mental health care integration in primary care in order to reduce the gap between the prevalence of mental disorders and its treatment in lower middle income countries (LMICs). In Indonesia, mental health act has launched in 2014. However not all public health centres (PHCs) are able to implement the integration of MHS into PHCs.
Objective: To explore the coverage, opportunity and barriers for mental health service provision in Public Health Centres in Denpasar, Bali, to recommend specific strategies to improve mental health services (MHS) for the community.
Method: This study applied mixed method. Quantitative method, were applied by using secondary data from health department of Denpasar. The Qualitative data were collected by conducting in-depth interviews with stake holders and Focus group discussions.
Results: The coverage of mental health services in PHCs in Denpasar was found to be inadequate. The stake holders were not sensitive in prioritizing the mental health program in primary care. The key stake holders reported that the barriers were: limited number of human resources, budget restrictions, an absence of relevant guidelines, scarcity of medicine, poor recording and reporting systems, an absence of supervision and poor referral system. The CHWs commented on the stigma and discrimination enacted toward people with mental disorders.
Conclusion: Coverage of mental health service in PHCs in Denpasar, Bali is still low. Local government and stake holders have to work together to overcome the barriers. CHWs can be involved to raise awareness and mitigation of stigma in the community.

Keywords:Mental health, integration Public Health Centers
250 words

CHAPTER I
INTRODUCTION

1.1 Background Information

Republic of Indonesia is the biggest country in south-east Asia with more than 13 thousand islands that are divided into 33 provinces. Indonesia has a population of around 237.6 million as reported in the 2010 census (Ministry Of Health RI 2013a). The Gross National Income per capita has risen from US$ 560 in the year 2000 to US$ 3,650 in 2014. About 28.6 million people are still living below the poverty line, which is set at US$ 22.6 per person per month (World Bank 2015).

Bali is located between Java and Lombok islands and supports a population of 3.89 million. Figure 1.1 provides basic information about Bali.

Figure 1. 1 Map of Bali and Basic Information about Bali

- Official Name : Bali Province
- Capital City : Denpasar
- Area :5,780.06 Km^2
- Population :4,165,115 people
- Ratio Male/Female: 1.01
- Ethnic : Balinese
- Religion : Hindu (93.3%),Islam (5.2%) Kristen (0.8%),Budha (0.5%)
- Administrative regions:9 districts, 57 sub-districts

Source of Map: www.google.co.id

1.2 Problem Statement and Justification

1.2.1 Mental Health Problem: Burden and Organization of Care

Physical and mental health are two different aspects of health that regularly influence each other (Patel 2003). In 2010, it was estimated that each year 38.2% of the total European population is affected by mental disorders (Wittchen et al. 2011). The most frequent disorders were anxiety (14.0%), followed by insomnia (7.0%), major depression (6.9%), somatoform disorders (6.3%), alcohol and drug dependence (4%), ADHD (5%) and dementia (1-30% depending on age). It was also estimated that neuropsychiatric disorders accounted for 30.1% of the total disease burden in females and 23.4% in males. Depression was found to be the most frequent cause of Disability-Adjusted Life Years (DALYs) in the European population (Wittchen et al. 2011). Mental disorders were reported to be the 3rd major cause of DALYs (behind cardiovascular and malignancy cases) (WHO Europe 2012).

Worldwide, mental and substance use disorders accounted for 183.9 million DALYs or about 7.4% of all DALYs in 2010 (Whiteford et al. 2013a). Therefore it represented the 5th leading cause of global DALYs and with 22.9% the 1st leading cause of non-fatal burden of diseases. Mental and substance misuse disorders were directly responsible for 8.6 million years of life lost to premature mortality (YLLs), equivalent to 232,000 deaths (Whiteford et al. 2013b). In 2004, WHO estimated the prevalence rate of schizophrenia, depression and emotional disorders in South-East Asia was about 0.37%, 2.88% and 4.25% respectively among a total population of 276.8 million). (WHO 2004). Detailed information about the prevalence of mental, neurological and substance abuse disorders in all WHO regions is shown in table 1.1.

In Indonesia, based on the national health survey, in 2013, the prevalence of severe mental disorders including schizophrenia and psychoses was found to be about 1.7% per thousand people and mild mental disorders (emotional disorders) were found about 6.0%. About 14.3% of family who had a family member with severe mental disorders, revealed that they have had restrained the affected person, by either imprisoning or placing them in physical restraints. The proportion of restraining family member with severe mental disorders was found to be higher in rural areas (18.2%) and among people who live in poverty (19.5%). In Bali, the proportion of severe mental disorders was about 2.3%, and mild mental disorders were counted about 4.4% (Ministry Of Health RI 2013a).

Table 1.1 Prevalence (%) of Mental, Neurological and Substance Abuse Problems Prioritized in Mental Health GAP Action Program of The World Health Organization (WHO), By WHO Region.(Bruckner et al. 2011)

	Prevalence by disorder												
							Substance abuse			Paediatric			
WHO region	Schizophrenia[a]	Bipolar[a]	Depression[b]	Suicide[c]	Epilepsy[d]	Dementia[e]	Alcohol (hazardous)[f]	Opioids[g]	Other drugs[h]	Intellectual[i]	Conduct/ behavioural[j]	Emotional[k]	Population (millions)
African	0.28	0.37	2.18	0.14	1.04	0.09	0.52	0.05	0.29	1.50	4.25	4.25	316.5
Americas	0.42	0.45	2.80	0.16	1.26	0.34	2.68	0.04	0.37	1.50	4.25	4.25	138.9
Eastern Mediterranean	0.36	0.41	2.79	0.15	0.55	0.12	0.21	0.44	0.14	1.50	4.25	4.25	460.3
European	0.50	0.50	2.83	0.30	0.42	0.51	4.01	0.14	0.08	1.50	4.25	4.25	110.2
South-East Asia	0.37	0.43	2.88	0.26	0.58	0.17	1.28	0.12	0.10	1.50	4.25	4.25	276.8
Western Pacific	0.44	0.50	2.84	0.13	0.39	0.33	2.77	0.02	0.19	1.50	4.25	4.25	178.4

Mental health problems are usually related to multiple factors, such as biological, psychological, social and economic factors. Women and children, people who are living in poverty, the elderly, migrants and refugees, are more vulnerable to suffering from mental disorders (Patel et al. 2013). The other important factor is religion and culture that may perpetuate alternative perspectives towards mental illness and appropriate treatment. This is also related to awareness within the community toward the urgency of treatment (Minas & Diatri 2008).

Although it is closely related to other physical diseases, most psychiatric disorders in LMICs are neglected (WHO and Wonca 2008). About 80% of people in LMICs who need mental health care support were not treated (Patel et al. 2013) . A survey that was conducted by the WHO-MH consortium reported that the proportion of mentally ill patients who did not receive psychiatric treatment in 12 months prior to the interview, varied from 35.5% to 50.3% of serious cases in developed countries and 76.3% to 85.4% in less developed countries (WHO 2004). Sometimes, medicine was available, but the intervention provided was poor because of the limited number of trained health workers in the mental health area (WHO 2010).

Mental health problems need holistic approach therapy since it affects the personal, economic and social life of the patient and their family. Therefore,

WHO suggested the integration of MHS in primary health care. It is also aimed to reduce the gap between the mental health prevalence and psychiatric treatment. Moreover, integrating MHS in Primary care may reduce stigma, discrimination, and violation of human rights which often occur in psychiatric hospitals. The integration of MHS in PHC can be performed optimally when it is supported by the secondary level and tertiary level hospitals, community services, informal services and self-care (WHO and Wonca 2008).

In 2008, WHO launched the mental health gap action program (mh-GAP) and created the international guidelines (IG) to provide an integrated package of interventions in order to reduce the gap in treatment of mental health and substance disorders. This guideline is recommended because it is an effective and efficient tool to deliver MHS in primary levels, mainly in low resource settings. Secondly, it is cost effective in terms of training and supervision. The interventions are provided and applicable for various conditions and it promotes limited resources on the best value for money. The mh-GAP-IG was aimed at decreasing the burden of mental and substance disorders in low resource setting (WHO 2010).

Providing MHS at the primary level will reduce disability caused by untreated mental disorders. A study reported that about 11% of the burden due to depression was avertable with 50% coverage with antidepressants and 23% of burden due to epilepsy was avertable at 50% coverage with standard anti-epileptic drugs (Dua et al. 2011). However, integrating mental health in priority health care is not as easy as only providing the guidelines such as the mh-GAP launched by WHO. Any initiative needs to be adjusted to the country's health care system and adapted to the local resources and settings (Patel et al. 2013).

1.2.2 Government Policy on Mental Health in Indonesia

Since 2001, the Indonesian government has been adopting the integration of mental health service in the primary care level and in 2014 Mental Health Act was established. In the mental health act, the first level treatment for mental illness should be provided by every Public Health Centres (PHCs) (Mental Health Act 2014). Nevertheless, most PHCs in Indonesia have been unable to implement the program optimally.

The Mental Health program is still not viewed as a priority in many PHCs because of too many basic and immediate health issues, such as maternal and child health, infectious diseases, nutrition, etc. Several barriers that are likely to hinder the service provision in other PHCs, including human resources problem, availability of medicine and financial resources and response of the community toward the service (Marchira 2011).

The other challenge may also come from the users. For instance, in Bali, most psychiatric patients and their family still believe that psychiatric disorders are caused by supra-natural power. In 2005, Kurihara et al., published a research report about the pathway of treatment seeking behaviour among mentally ill patients in Bali. Among the 54 subjects who were involved in the study, about 78% of the respondents revealed that they went or have brought their family members to traditional healers as the first choice for treatment for mental disorders. Only 7% patients visited a general practitioner, 6% of them visited community health centres and 4% visited the hospital directly, although the community health centres and general practitioner are available and accessible. This pattern of help seeking behaviour leads to delay of treatment for mental disorders in Bali (Kurihara et al. 2005).

PHCs only become a treatment place for patients with mental disorders to get referral letters (Marchira 2011). In Bali, even though in Denpasar area where most of the PHCs have complete facilities and more health workers as compared to the other districts, some PHCs are still struggling to provide MHS in the PHC's policlinic. Although in the mental health act, it is stated that PHCs should be able to provide treatment at least for mild mental disorders (Mental Health Act 2014), the policy is still partially integrated in the PHCs in Bali, specifically in Denpasar. Because limited information and research is available related to the coverage and barriers in providing MHS in PHCs Denpasar area, this study was conducted to explore the coverage, barriers that are faced by the key stakeholders in integrating MHS in PHCs level. This study also aimed to explore the strategy that would be appropriate to improve the MHS provision in PHC in Denpasar.

1.3 Study Objectives

1.3.1 General Objective

The objective of this study is to explore coverage opportunity and barriers for mental health service provision in Public Health Centres in Denpasar, Bali, in order to recommend specific strategies for improving mental health services for the community.

1.3.2 Specific Objectives

a. To describe the potential and actual coverage of MHS in PHCs in Denpasar, Bali.
b. To explore opportunities and barriers of MHS provision in PHCs in Denpasar, from the perspective of stake holders and community health workers (CHWs).

c. To discuss and put forward recommendations for strategies to improve MHS in PHCs in Denpasar.

1.4 Research Benefit

This research expected to give benefit for:

1.4.1 Department of health of Denpasar district: to suggest recommendations for improving mental health services for the community.

1.4.2 Provincial and National Government: to give additional data about the current situation in mental health service provision in PHCs Denpasar, Bali as consideration in reviewing the national policy related to mental health service in PHC.

1.4.3 Providing new information about mental health service integration in PHC in Indonesia, specifically in the Balinese context to help other researchers in conducting other research to find different aspect of MHS provision in PHCs.

CHAPTER II
RESEARCH METHOD

2.1 Study Design

This study applied mixed methods: a quantitative method, which was applied to obtain secondary data about the coverage of MHS in PHCs in Denpasar. Exploratory qualitative research was applied to uncover the barriers and opportunities in MHS provision in PHCs. The scope of the study was limited to the context PHCs in Denpasar, Bali. The study was conducted from March to December 2015. Before the data collection was started, an official permission letter has been obtained from the authority of Denpasar government. Then the letters were submitted to the health department of Denpasar, all PHCs, district Hospital and provincial hospital to obtain permission of data collection.

2.2 Data Collection Method

2.2.1 Quantitative Data

Secondary quantitative data that were collected from different sources based on the variables which are presented in table 2.1 below.

Table 2.1 Variables and Source of Data for Assessment of Coverage of MHS in PHCs in Denpasar

Variables	Sub variables	Source of Data
A. Potential Coverage	**Availability:** • Number of PHC in Denpasar • Number of Health workers • Medicine **Geographic Accessibility:** • Location of PHC • Mode of Transport • Cost of travel **Affordability:** • Cost of service	Published report from government institution, such as: - Health Profile of Bali Province - Basic National Health Survey - Health statistic of Indonesia - Map (google map) - Also added by data from Interview and FGD
B. Actual Coverage	**Contact coverage:** Number of reported cases (patients with mental disorders) which are classified based on: sex category, old and new cases, diagnoses **Effectiveness coverage:** Progress of treatment	• Annual Report of mental health program manager in the Health Department of Denpasar District • No Data were available

2.2.2 Qualitative Method

Qualitative data in this study were collected by In-depth interviews (IDI) and Focus Group Discussions (FGD). IDIs were aimed at exploring the opportunities and barriers in MHS provision in PHCs in Denpasar, Bali from the perspectives and experience of stake holders in PHCs, Referral Hospitals and department of health in Denpasar district. Meanwhile the FGDs were conducted to explore opportunities and barriers in MHS provision in PHCs, from the perspectives of Program Managers (PM) and CHWs. The IDIs and FGD were recorded with an electronic recorder under the consent of the respondents and participants.

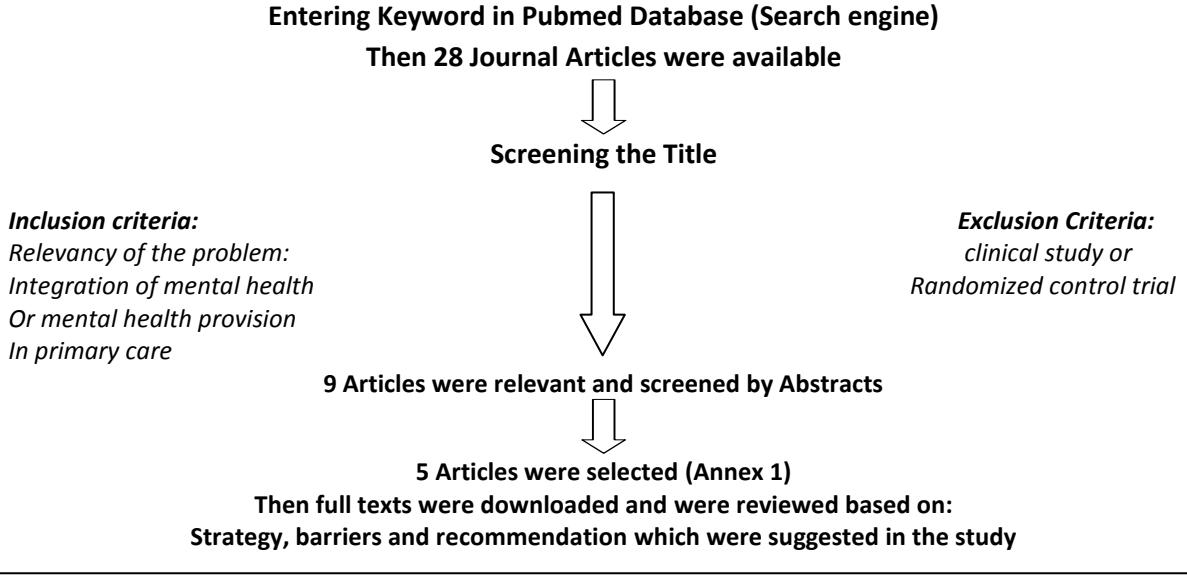
2.2.3 Literature Review

Literature review was applied to find relevant research related to specific strategies which have been successfully implemented to improve MHS in in LMICs. The articles were obtained from the Pubmed, by using keyword below.

(Strategy OR program OR intervention) AND (mental health OR psychiatric OR mental disorders OR mental illness) AND (provision OR integration) AND (primary care OR public health centres) AND (developing countries OR lower and middle income countries OR LMICs).

The chart below explains the selection of the articles which were included in the literature review. The articles are cited in the section about strategy and Discussion. The list of articles which are included in the review will be provided in annex 1.

Figure 2.1 Process of Article Selection for Literature Review



2.3 Sampling Technique

In total there were 8 IDIs and the respondents were selected purposively, based on the roles of the respondents in MHS provision in PHCs in Denpasar area. The head of district health department and the MH program manager was interviewed in order to obtain information mainly about policy, opportunity and barriers in providing MHS in PHCs. The GPs were selected based on their experience in delivering service for patients with mental disorders and also based on their experience in joining the training before. The psychiatrists in the referral hospital were also included to explore about the perception toward MHS provision at the primary level.

Both FGDs were conducted at the Faculty of Medicine, Udayana University, on different days. In the first FGD, the program managers were asked about some issues related to their experience, opportunities and barriers that they have found in managing MHS program in the PHCs. They were also asked to give their opinion about certain strategies which might be suitable to be implemented in order to improve MHS in PHCs in Denpasar, Bali.

The second FGD were the group of community health workers and the discussion were focused on the experience of the CHW in helping the MH program managers to improve MHS in the PHC in their area, the community awareness and response toward MHS in PHCs and their suggestion to improve MHS in the PHC. The list of all respondents and their roles are explained in the table 2.1.

Table 2.2 Category and Number of Respondents for In-Depth Interviews and Focus Group Discussions

Data Collection Method	Category	Number of respondents
A. In-Depth Interview	**1. Stake holders:** • Head of Health Department of Denpasar • MH Program Manager in District Level **2. Health Workers** • Medical Doctors • Psychiatrists **Total**	 1 respondent 1 respondent 4 respondents 2 respondents **8 respondents**
B. Focus Group Discussion	1. Program Managers in PHCs in Denpasar 2. Community Health Workers (CHWs)	10 participants 9 participants

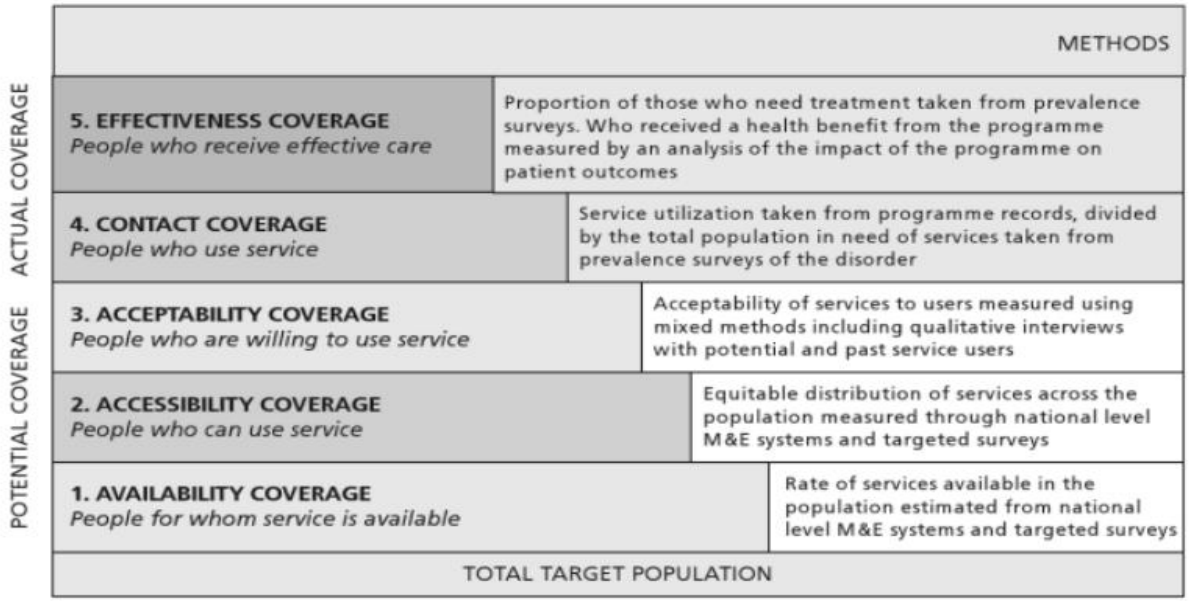
2.4 Data Processing and Analysis

2.4.1 Quantitative Data Analyses

The quantitative data were classified to answer the first objective about coverage of MHS in PHCs. Some raw data such as number of PHCs, number of health workers, and number of patients were available as absolute numbers, which were then tabulated by using excel program to generate proportion numbers. The measurement of the coverage is based on the Tanahashi framework in the figure 2.1, but several quantitative data are not available.

Coverage is defined as the proportion of the target populations who have received the services that are provided. There are 2 main aspects of coverage: ***potential coverage*** consists of: availability, accessibility and acceptability coverage. The contact and effectiveness coverage is determined as ***actual coverage*****.** Below is the diagram of all determinants in Tanahashi Framework. (Tanahashi 1978)

Figure 2.2 Tanahashi Diagram Explaining The Method of Measuring Coverage of Health Service Which is Provided for The Targeted Population.



2.4.2 Qualitative Data Analyses

The recorded interviews and FGDs were transcribed verbatim and the data were analysed by applying thematic analysis. First all transcripts were read and classified into code and theme based on the type of issue that are discussed. Then, all the codes and theme were reconfirmed for any similar idea and re-grouped to reduce the number of theme. Since the IDIs and FGD

were conducted in Indonesian language, mixed with Balinese language, some statements of the respondents were translated into English language and were included in the report as quotation.

2.4.3 Literature review

All of the articles were reviewed by classifying them into several themes, including: type of strategies/intervention, strength and weakness of the strategy, barriers that were found in the implementation of those strategies and the recommendation that are suggested in the study. From 6 articles which were downloaded in a full text version, only 5 articles have relevant strategies which could be implemented in the local context of Bali. The review results are discussed in the discussion section.

2.5 Ethical Consideration

The ethical clearance was approved by ethical committee of Udayana University/Sanglah Hospital, Denpasar, Bali on 25th April 2015 and from KIT Research Ethic Committee, Netherlands, approved on 13th August, 2015. Then the letter of ethical clearance approval was submitted to the provincial government in order to get official permission and recommendation for the data collection.

The respondent's confidentiality assured by using numerical codes in the IDIs/FGDs notes and recorded data. Written informed consent was obtained from the respondents of IDIs before the interviews were started. In the FGD, informed consent was obtained verbally as group consent. The quotes that are used in the thesis report are provided by using special codes. The recorded data will be discarded 6 months after the research report has finished.

2.6 Quality Assurance

The interviews with the respondents were held at the private room in PHCs, Hospital and health department office, so that the respondents felt comfortable to share their experience. The FGDs for the program managers was conducted in faculty of medicine, Udayana University to allow the participants discussing their opinion and experience without any hesitation. After the FGDs, the data were compared to the guideline topics and cross-checked between facilitators and note takers.

2.7 Dissemination and Application of The Results

The research report will be submitted to the Ethical Clearance Bureau, Health Department of Denpasar Districts and All PHCs in Denpasar. The research also will be submitted to the related journals and/or conferences.

CHAPTER III
STUDY RESULTS

3.1 Characteristic of the In-Depth Interview Respondents and Focus Group DiscussionParticipants

In this study, 8 respondents were involved in the In-depth interview. They are 4 GPs from 4 different PHC representing every sub-district. Two respondents are psychiatrists, and 2 respondents were from the health department of Denpasar (mental health program manager and the head of health department of Denpasar). Only 2 respondents were male and the rest are female. The minimum age of the respondents was 31 years old and the maximum age was 50 years old.

The first FGD was the group of 10 program manager who represented all PHCs in Denpasar except the program manager from the PHC in south of Denpasar. The FGD is conducted in the meeting room of Community and Preventive Department in Faculty of Medicine, Udayana University. The facilitator was the PI and the note taker was one of the research assistants. The discussion was recorded under the group consent and then it was transcribed verbatim. The first FGD participants were all female, where 6 of them are nurses, 3 midwives and 1 public health practitioners (graduated from bachelor of public health). The range of age is 27-50 years old, most are Balinese, and 2 of them were from Java. Most of them work as Mental Health Program Managers for minimum of a year.

The second FGD were attended by 9 community workers from 4 sub-districts. The community workers were selected by the PHCs considering their roles in helping the PHCs to find new cases in the community and conduct home visits. There were 3 males and 6 female participants with the minimum age of 26 years old and the maximum age of 50 years old. All the participants agreed to have their discussion recorded and were informed that the transcript will be anonymous. All the community workers were Balinese and Hindu.

In all PHC in Bali, there are no specific cadres who are working on mental health area. However every PHC has about 5 community health workers who were work mainly in vector control (for instance mosquito control). They are called "Jumantik", an Indonesian term for CHW who help PHC in doing survey in the household in order to promote dengue prevention. They usually have to check if there any people in the community have water containers which are occupied by mosquito larva. They also distribute abate powder (chemical substance to kill mosquito larva). Since 2014, the mental health program were becoming a concern of the national government, some

PHCs have involved the Jumantik (CHWs) to help in case finding and follow up the patient with mental disorders.

About 50% CHWs who were invited to the FGD had experience in helping the MH program manager in PHCs in dealing with mental health patients, such as reporting patient with mental disorders, referring the patient to the hospital and distributing flyers about mental health in their area. In the FGD, all CHWs actively discussed different opinion and share different experience among each other.

3.2 Coverage of Mental Health Service in Public Health Centres in Denpasar, Bali

As explained in the research method, the coverage of MHS in PHCs in Denpasar will be discussed by adopting Tanahashi framework. However because of the limitation in the availability of secondary data, some variables will be clarified with qualitative data.

3.2.1 Potential Coverage including availability, geographic accessibility and acceptability

Availability variable consisting of: *place, facilities, medicine, human resources* and *opening hours*. Table 3.1 shows the number of PHC in every sub-district in Denpasar, the total target population and estimation of catchment area. In the table it is also evident the ratio of PHC as compared to the target population in every sub-district. The average ratio of PHC in Denpasar District is about 1 per 100.000 populations.

Table 3.1 Number of PHC, Total Population and Estimation of Catchment Areas in every sub-district in Denpasar, Bali, in 2014(Department of Health of Denpasar 2015)

Sub-district	Number of PHC	Total Population	Ratio PHC/100.000 Population	Estimation of catchment area (Km^2)
North Denpasar	3	187,690	1.59	31.42
East Denpasar	2	146,510	1.36	22.31
South Denpasar	4	266,420	1.50	49.99
West Denpasar	2	245,580	0.81	24.06
Total	**11**	**846,200**	**1.29**	**127.78**

Generally the Policlinics in the PHCs are open at 8.00 am -1.00 pm from Monday to Thursday, but on Friday and Saturday, the policlinics usually have shorter opening hours (from 8.00 am- 11.00 or 12.00 pm). Some PHC provide an emergency room and in-patient care unit, which are open for 24 hours every day, so in this area, the patient could come at any time. Among 11 PHC, only 3 PHC have an in-patient care unit and emergency room. Based on the data from Ministry of Health, published in 2014, every PHC in Denpasar have at least 1 car for mobile clinic or an ambulance and several motorbikes (about 2-3 units) which can be used for referring the patient or home visit. (Health Department of Bali Province 2014).

From the IDI with the GP respondents and FGD with program managers, they reported that mental health services are provided in the general policlinic. There is no special space provided only for MHS, except in one PHC in East Denpasar, they provide separated desk and added curtain to separate the area with the other consultation desk in the general Policlinic. This private area is provided for doing anamnesis and examination of patient with suspected mental disorders.

In the IDI, all GPs said that cases of mild mental disorder were usually found as psychosomatic cases in the PHC policlinics. Sometimes mental disorders did not able to be detected until the patients did not show improvement after more than 3 times coming with similar problems. The GPs recognised that mostly the mental disorder were missed classified by the GP, and often did not recorded in the mental health program report.

The GPs and program managers reported that active screening and case finding were rarely conducted since the health workers did not have enough time and budget. Mostly the GP revealed that they were not confident to treat patient with mental disorders and the availability of medicines is limited in the PHCs. Some other problems were mentioned by the program managers related to the management of MHS which are discussed in the section on human resources.

Table 3.2 presented the number of health workers in every PHC in Denpasar, based on the data from MOH survey report, in 2014.

Table 3.2 Number of Medical Doctors, Midwives and Nurses in Every PHCs in Denpasar in 2015(Health Department of Bali Province 2014)

PHC	Medical Doctors (MD/GP)	Nurses	Target Population	Ratio of MD per 100.000 population	Ratio of Nurses per 100.000 population
South Denpasar I	4	11	90,737	4.4	12.1
South Denpasar II	3	7	57,391	5.2	12.2
South Denpasar III	3	10	34,623	8.7	28.9
South Denpasar IV	5	8	25,964	19.3	30.8
East Denpasar I	5	10	75,287	6.6	13.3
East Denpasar II	3	11	62,235	4.8	17.7
North Denpasar I	3	11	55,560	5.4	19.8
North Denpasar II	3	11	66,573	4.5	16.5
North Denpasar III	3	8	49,210	6.1	16.3
West Denpasar I	3	9	97,615	3.1	9.2
West Denpasar II	5	10	112,623	4.4	8.9
Total	**44**	**106**	**727,818**	**6.0**	**14.6**

Based on the data in table 3.2, the availability ratio of General Practitioner (GP) is varied between 3 GPs/ 100,000 populations (in PHC West Denpasar I) and 19 GPs/ 100,000 populations (in PHC South Denpasar IV). The total average ratio of GP in Denpasar District is 6.0 GPs per 100,000 populations, without considering the number of GPs in private practice/clinic and hospitals. The National Ratio based on the data of the council of medical doctors which was cited in Health Statistic report of Indonesia, was 36.1 GPs/100,000 populations, and the ratio of GPs in Bali was 67.4 GPs/ 100,000 populations. Nationally, the ratio of GP among PHC in 2012 was about 2 GPs per PHCs and in Bali the average ratio was about 3 GPs/ PHCs (Ministry Of Health RI 2013a). While based on the data from Bali Health Profile report, in the table 3.2 shows that the average ratio of GPs per PHC was 4 GPs/ PHCs. This ratio is higher than the Bali province ratio which means it is enough GPs in PHC.

The ratio of nurse compared to the general population in total, in PHCs in Denpasar, about 14.3 per 100,000 populations excluding the nurses who worked in private clinics or hospitals. In the national standard based on Healthy Indonesia Indicator in 2010, it is suggested that there must be 117.5 Nurses per 100,000 populations.(Ministry Of Health RI 2013b) In fact,

based on the health statistic report, there were 96.2 Nurses among 100,000 populations and 51.6 midwives per 100,000 populations who are working in PHCs, government hospitals, private clinics and private hospitals. In Bali, the total ratio of Nurse based on the Indonesian health statistic data was 113.7 Nurses/100,000 populations. (Ministry Of Health RI 2013a)

From the data it is evident that in order to provide mental health services in PHCs, the number of GPs and nurses are insufficient in some areas, unless private GP and Nurses are involved to provide and report mental health cases in primary care level. This was also confirmed by the statement from the medical doctors, program managers and the head of health department of Denpasar.

Every doctors and nurses in every PHC said that they felt overloaded, because they have to serve about 50 to 100 patients every day at the policlinic, within 4-5 hours. Most of the key informant said that problem of human resources is the most important factors as a barrier in providing service for psychiatric patients. More discussion about scarcity of human resources will be discussed in the section of barrier in human resources.

To manage mental health service, there is no specific budget allocated by the Health Department or Local Government. All material such as medicine and supporting facilities is provided based on the proposal from the head of PHCs. Generally the financial source for health program in Denpasar District is a combination of funding from: national budget, local government, social insurance and out of pocket funds (from the patients who do not have any insurance).

The figure 3.1 below illustrated the location of the 11 PHCs in 4 sub-districts. Every PHC covers approximately 3-5 villages. The average distance from the community residence to PHCs is about 2-8 km. Overall, all the PHC are accessible from the community housing. The PHCs in every area can be reached within 5-15 minutes by motorbike or 20 minutes by car. There are also public transport like bus and bemo (minivan), however, it is not reliable and not organized very well. Therefore, most people prefer to travel by motorbike or car. About 75% of people riding motorbike in daily activities and only 2-3% people using public transport. Taxis can be found easily, but the price is slightly higher and rather not affordable by lower middle economy class. The average of transport cost is about 10.000 to 20.000 rupiahs return from the housing area to the PHCs (Statistical Bureau of Bali Province 2015)

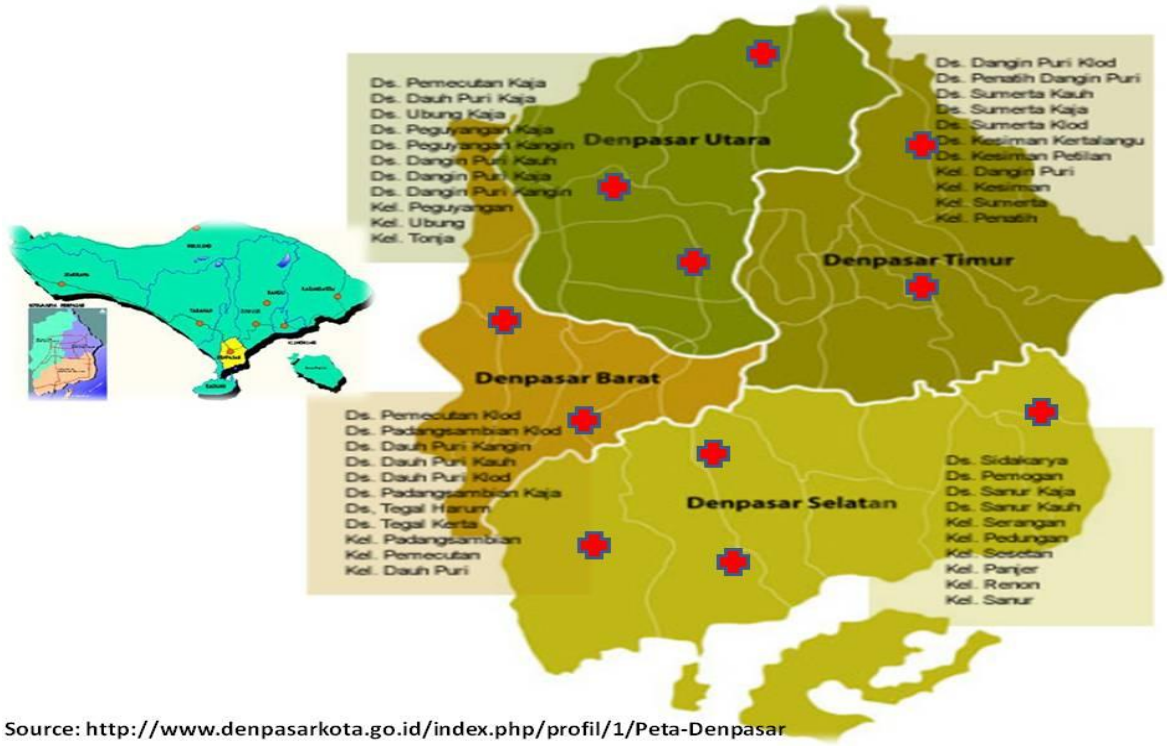


Figure 3.1 The Location of PHCs in Each Sub-district in Denpasar Modified from The Map of Denpasar City.

3.2.2 Actual Coverage

According to the report from Basic Health Survey in 2013, the prevalence of severe mental disorders in Indonesia were about 1.7 per thousand people and in Bali the prevalence were 2.3 per thousand people. There is no data available about the prevalence of mental disorders for Denpasar District (Ministry of Health RI 2013b). If the prevalence of severe mental disorders in Bali is used to calculate the estimation of target cases in Denpasar (2.3 per thousand people), the absolute estimation numbers of schizophrenia and psychoses are 1,673 people. However, the absolute number of severe mental disorders as reported by all PHCs in Denpasar (in table 3.3) was only 841 patients. If it is converted into the prevalence rate by ignoring un-reported cases, the prevalence is 1.15 per 1000 population in Denpasar. This prevalence is far lower than the result from available basic health surveys, most likely because the data whicha are obtained from the report of mental health program managers in Denpasar was only the number of cases that were registered in all PHCs in Denpasar. Undoubtedly, the prevalence of severe mental disorders is higher in the general population. Some patients might not come to the PHC, but to psychiatrists or hospitals, where they were not recorded in the PHC report.

The cases of mild mental disorders are rarely detected and reported in the PHC clinics. Therefore the proportion of the reported cases is very low. In the Interview, some GPs from the PHCs stated that mild mental disorders usually neglected and missed-diagnosed since the patient came with physical problems instead of complaining about the psychological problem behind their illness. More discussion about underreported cases of mild mental disorders will be discussed in barriers section.

The following table (table 3.3) shows the data that are recorded and reported by PHCs to MH program manager in District Health Department.

Table 3.3 Number of Psychiatric cases in All PHCs in Denpasar, Bali, Based on diagnoses classification, in 2015

Diagnoses classification	New Cases		Old/Follow Up Cases		Total	
	Absolute Number	(%)	Absolute Number	(%)	Absolute Number	(%)
Organic Mental Disorders (F00#)	8	1.3	2	0.2	10	0.6
Drugs and substance abuse (F10#)	0	0.0	4	0.4	4	0.2
Schizophrenia and Other Psychotic Disorders (F20#)	**170**	**28.5**	**671**	**59.3**	**841**	**48.7**
Acute Psychotic Disorders (F23#)	24	4.0	10	0.9	34	2.0
Bipolar Disorders (F31#)	27	4.5	4	0.4	31	1.8
Depressive Disorders (F32#)	37	6.2	40	3.5	77	4.5
Neurotic Disorders(F40#)	198	33.2	69	6.1	267	15.5
Mental Retardation (F70#)	9	1.5	8	0.7	17	1.0
Children and Adolescent Mental Health (F80-90#)	1	0.2	7	0.6	8	0.5
Epilepsy (G40#)	**115**	**19.3**	**312**	**27.6**	**427**	**24.7**
Suicide	7	1.2	4	0.4	11	0.6
Total	**596**	100	**1131**	**100**	**1727**	**100**

From the table it can be seen about 1,727 patients have visited the PHCs in all sub-districts. The proportion of new cases was 34.51%. While based on

sex category, the proportion of male patients is higher than female (60.4% male, 39.6% female). In the table, it is reported that the highest proportion is cases of severe mental disorders (overall 48.6% which is 28.5% from total new cases and 59.3% from follow up cases). Then followed by epilepsy, which was 24.7%. The smallest proportion was drug abuse (0.23%) and there was no new cases reported

Effectiveness coverage could not be reported in this research since the data about the patients who get appropriate treatment is not available. Not all the PHC have the follow up data of the patients. The program managers of Health department only have the data about the intervention of all cases that are reported in PHCs. During January to November 2015, about 66.92 % of patients were referred by the PHCs to District hospital in Denpasar or Mental Hospital in Bangli, 10.67% of the patients were still hospitalized and 22.4% have been discharged from the hospitals.(Department of Health of Denpasar 2015)

3.3 Opportunity in Providing Mental Health Service in PHCs

3.3.1 Availability of National Policy

The availability of mental health act at national level since 2014 were seen by the stake holders and psychiatrists as good opportunity to improve mental health care service at primary level. As told by the psychiatrists, the mental health act covers several issues about the rights of people who are suffering from mental disorders. Family and health care providers have to work together to reduce violence among people with mental disorders. The government guarantees the availability of mental health care at primary, secondary and tertiary level.

The psychiatrists also said that although the national policy is available, the policy is not yet translated into local policy and guidelines, therefore, most of the stake holders (program managers and general practitioners) in PHCs still are not aware about the implementation. The mental health policy will be useful when it is disseminated in all levels of government and time is needed to prepare and improve awareness among local leaders. This issue will be discussed more in the subtheme of an absence of local policy and guidelines as one of disabling factors in providing MHS in PHC in Denpasar.

3.3.2 Geographic Accessibility of All PHCs in Denpasar

Overall it can be concluded that geographic accessibility is not the main problem. Based on the secondary data about the PHC location, every PHC in Denpasar district is reachable because it is located close to community housing. From the interview, all the respondents agreed that geographically all the PHCs can be accessed easily from all areas in Denpasar. Every sub-

district had more than one PHC which are all can be reached in 15-20 minutes by motorbike or car. Normally patients with mild mental disorders are still able to come to PHCs by themselves. However, some patients with severe mental disorders could not come to the PHC by themselves.

In the focus group discussion with the CHWs, they said that PHC is more accessible since it is closer from the community residence. Some GPs also mentioned that the family or care givers prefer to ask the health workers to come and treat the patient at their house, it is not easy to convinced the patients to come together to the PHCs. Patient who are suffering from mental disorders are not accepting that they were diagnosed having mental disorders.

FGD CHWs

Question : So… if the MHS service is provided in the PHC, what do you think? Is it more accessible than hospital or Psychiatrists clinics?

CHW_S1 : Yes, it is accessible, but we are afraid to bring them to the PHC (everyone laugh)

CHW_S4 : Yes, except the PHCs staff come and give instruction to us and the family to bring the patients, we will bring them..

Question : So it will be easier if the PHC staff doing the home visit?

CHW_S1 : Yes, it is better if they pick up the patient, and our task only giving information when there are cases of psychotic or schizophrenia in our area.

Question: How about in other area??

CHW_S1 : Yes, will be more accessible if the medicine and facilities are available in PHCs. If the patient could be treated in the PHCs, it will be easier, but when the patients are needed to be referred, it is fine to refer them to the hospital.

3.3.3 PHC is Less stigmatizing than Psychiatrist Clinics or Hospitals

In the interview with the GPs, they reported that most of the patient who came to PHC clinic denied that they were diagnosed with having psychiatric problems, and refused to be referred to the psychiatrist. Some people still feel stigmatized if they were found having mental disorders. So they feel more comfortable to come to the GP, without judged by other people. It was stated by the CHWs in the FGD.

FGD CHWs

Question : If the Mental health service is provided in PHCs, are there still any barriers from the community side to come?

CHW_S1 : I think, when people come to the PHCs, no one would know about their psychiatric problems. The staff will keep the secret… just like the VCT clinic (for HIV test), not all community knows what are VCT' stand for, and no one suspicious to some people who underwent this test. Because the PHC kept the confidentiality of the data.

Question : Okay… then do you think that it should be arrange in special room in the PHC?

CHW_W1 : I think it is a good idea, but don't put a label of Psychiatry on it, maybe we can name the room as name of flower like what they did in the hospital for the HIV wards (such as Nusa Indah Wards). So only the health workers knew what kind cases should go to that room.

Question : Oh I see… so if we put the label it will cause more stigma and discrimination among the patients?

CHW_W1: Yes, for instance if we put "Mental Disorder Room" Then we will avoid that room, we will get depressed before entering the room, hahaha… (all the CHW laugh)

In the IDI, the psychiatrists also supported the shifting of mental health service from hospital based to PHC based since it will reduce the stigma in the community. But the psychiatrist did not agree if the service is provided exclusively, such as providing special room with label of mental health clinic or illness because it will stimulate curiosity and judgement of general patients toward people who enter the room in the policlinic.

3.4 Barriers in Providing Mental Health Service in PHCs

3.4.1 Poor Dissemination of the Policy into the Local Government and PHCs

The dissemination of the mental health act is still limited although it was launched in 2014. Only psychiatrists know the policy, while almost all the GP respondents did not know about the mental health act. It was stated by the psychiatrist respondents, who are actively involved in psychiatrist expert organization and also a lecturer in the faculty of medicine. The GPs only knew that mental health is one of additional programs in PHC. It is not well-organized in the general policlinic of the PHC. The guidelines for diagnosis and treatment for Mental Disorders is not available in all PHCs in Denpasar. When there are suspicious cases, the GP did not have the confidence to provide treatment. The GPs said that most of the cases found in PHC were mild depression or anxiety, but it is mostly recorded as psychosomatic cases, and because the medicine is not available, the GP only treated the physical symptom. If the symptom were severe, the patients will be referred to the psychiatrist or to district hospital.

"This law (mental health act) is available since a year ago…. But...availability of the law does not make sure that it is can be used… there are no regional rules and in all ministry… for example in ministry of education, is it possible if people with mental disorder to attend any school…..work force, social department, it needs agreement letter of all (institution) to allow the implementation of this law. So that when the family do not want to be care givers, there will be a punishment… because the law has just been launched may be not all governor know this law. All procedures may be completed in 5 years…This law is has just disseminated at Mental hospital and Educational Hospital level" (IDI_01)

3.4.2 Problem in Human Resources and Training

Almost all respondents in IDIs and FGD participants revealed that human resources are the greatest problem in providing MHS in PHC. Currently, every PHC in Denpasar only has 3 to 5 GPs, where only 2 GPs is in charge in the Policlinics. Meanwhile the other may be in charge to handle management (as head of PHC or a specific program). Most of the GPs who are in charge as the head of the PHC are usually would not be involved in the Policlinics, and only carry out management tasks. In addition, the head of PHC was commonly invited to attend some meetings or workshops regularly.

Meanwhile, the GPs in PHCs felt they were overloaded with 80 to 100 patients who came to the policlinics every day. It is also supported by the head of health department that the human resources is still a big challenge for scalling up MHS. The quotes below explain how the GPs faced dilemma in providing services for all patients in the PHC's policlinic.

"*Yes that's hard… only 2 doctors in the policlinic and we are not only focus on mental health. Psychiatric patient will need more time for longer interview and examination…the point is, it is hard, we don't have time, because we treat in hurry and treat the other patients as well…. Psychotherapy is impossible…moreover... I often work alone when my colleague have to attend several training, such as first aid training… and the head of the PHC is not involved in examining the patients, she would only took part in policlinic if both of us were not available. We also don't have special psychiatric nurses, the nurses only help in doing administrative things, such as reporting…We got about 80-100 patients per day… " (IDI_02)*

"I think it is hard, and HRH is a problem that is not only faced in Denpasar, but also everywhere… there is no employee recruitment, so we have to be selective in prioritizing the program in the PHCs" (IDI_03)

The other GPs said that they are usually aware about mental health aspects of the patients. Sometimes they tried to explore the problems behind the persistent physical complaint. However, because the GPs have limited time to do in-depth anamnesis, some of the GP tend to ignore the psychological problem and tend to give medicine only for the physical complaint. However,

sometimes, they had a chance to ask the patient to come to the clinic at a different time, so they could explore more about the psychological problems of the patients.

In the interview, the Psychiatrist explained that all GPs supposed to be able to diagnose and treat patient with mild mental disorders, since the competencies were included in the curriculum of GP education. The psychiatrist, who is also a lecturer in the faculty of medicine said that at least the GPs in PHCs have to be able to treat insomnia, mild depression, maintenance of Schizophrenia and Epilepsy. However, perhaps the doctor in PHC was not aware of mental disorders, or in many cases the required psychotherapeutic medicines were not available in the PHC. More discussion about availability of medicine and its impact will be discussed in the next section.

Most of mental health program managers did not understand their duty in mental health program in the PHC. They were appointed to be the program manager although they do not have educational background for mental health. Meanwhile they were also in charge of other programs such as maternal and child health, TB, Nutrition, HIV-AIDS program, etc. This situation made the program managers feel overburdened with many tasks and administrative duties.

FGD Program Managers

Question : "How many program do you usually handle at the same time period?"
All PM :"Hmmm… minimum 4 programs…."
PM_E2 :"Sometimes we also in charge in management and planning and also as an accountant"
Question : "Okay, how about the others, could you please explain it?
All PM : "Policlinics, the report also a lot, everything, it is a lot…"
PM_N2 : "For me.. My problem is that I am not a nurse, but midwives and I am supposed to be in charge in Maternal and Child Health program, so when I was asked to fill the report form about patient with mental disorders, I did not understand what I should write. I confused and also I did not know the patients, how were they when they came to the policlinic, also I did not know what medicine did the doctor give to the patients. That are all the obstacles I found as program managers who did not manage the patient directly…"

In May 2015, all program managers in Denpasar were invited to join a workshop about MHS Integration in PHCs. The workshop was held and funded by the Health Department of Denpasar. The speakers were the MH expert from the Ministry of health and Psychiatrist from provincial hospital. In the workshop, they were given information, including an update about management of mental health service and the reporting system. Some program managers said that the training was very important for them to improve their understanding and ability in managing mental health program.

"Recently… we have trained the program manager of all PHCs… mmm…. the next may be for the doctors... The training was a few months ago and special for Program managers… it was about their task and function. The training organized by special department (called Bapelkes-Institution of Health Training) the trainers were from Jakarta…." (IDI_03)

"At the beginning we did not know about mental health… then we got explanation (in the training) about mental health, how to deliver care for them, how to treat and what should we do if we mental disorder cases. Before the training, we only did data collection without knowing what we should do next… Then after the training, we know more…." (PM_N2)

At the first workshop, not all the program managers were eligible to join because some of them were an outsourced employee. While the workshop was only open for government employees (civil servant). Some PHC sent the nurse who was not in charge in mental health to join the workshop, consequently, the real PM did not understand clearly about the management of MH program even though they have received explanations from the colleague who joined the training. Some of the PM said that they did not understand a lot of things, such as: calculating the case estimation, planning the medicine stock based on the case estimation, filling the surveillance form. All in all, it could be concluded that the workshop was less effective since it is not giving significant improvement in management of MHS in all PHCs in Denpasar.

"The Program managers could not attend the training which was held 3 weeks ago. There were 2 nurses who join the training, but we haven't got any information related to the workshop until now… may be they will explain about it in the meeting. They only have explained to the program manager about the new form to record the psychiatric patients …" (IDI_02)

"Here…the program manager is a contract employee… she is not allowed to join the training. Now the nurse who is a government employee (civil servant) was trained and she would transfer the knowledge…" (IDI_04)

3.4.3 Psychotropic Medicines: Supply and Stock Problems

The availability of basic medicine is limited in almost all PHC in Denpasar. Some PHCs only provide Diazepam and Chlorpromazine, and some have haloperidol. The supply from Health Department to the PHCs depends on the reported cases in the previous month. But it is not clear how they calculate the medicine estimation since the program managers ask the pharmacists to do the calculation. The quotes below, which are taken from the interview with a GP in the PHC and the FGD participants, shows that some PHC have poor management in providing medicine and some have better management.

''Yes… one of the problem is the availability of medicine, especially today, it is very hard to get the medicines, may be only psycho-somatic drugs are available. Mmmm… for the severe cases of mental disorder who come regularly, the medicine is not available in PHC now. We can't provide the medicine by ourselves because we have to propose and wait. The pharmacists usually know about the calculation of the medicine that we supposed to have. The proposal usually submitted to the health department then the health department will check it, some may be reduced or added. It is depends on their budget and supply not always similar with what we proposed, because they also filtered it according to their budget allocation…we just wait and we only use what we got…" (IDI_02)

"In My PHC, I have the data about how many psychiatric patients that we have in our area, also data about how many patients have been treated and controlled in the Hospital, they usually have the control letters, where there are written the type of medicine, dosage and then we classified what kind of medicine that we should proposed… we count it in a year based on number of patients have been recorded and added by new cases that are found and treated by our GP." (PM_E2)

It was also confirmed by the representatives from health department, that they would not supply the medicine if there was no proposal from the PHCs due to the new policy in the national health management. Every plan and proposal will be checked if the supply matched with the need from the PHCs.

The psychiatrist, furthermore, mentioned that providing basic medicine such as diazepam is very important for the patient and health workers, especially in emergency situation. The cost for providing the medicine is not too expensive. However, in her opinion, the PHCs may provide limited number of medicine since the case of mental disorders that are found at PHC policlinics is not as much as general patient. They also may be worried if the medicine expires.

3.4.4 Lack of Supporting Facilities and Time in Delivering Service

Other controversial issues that also emerged from the interviews and FGD was the availability of supporting facilities, such as special rooms or private spaces for assessing mental disorder. Diagnostic form and proper time for examination and therapy were also mentioned by the GP respondents. The GP stated that they felt uncomfortable to ask private questions to the patient in front of other patients and health workers. Normally in most of the PHCs, the policlinics were consists of 2 or 3 sets of desk and bed for anamnesis and physical examinations. Because of the open setting, other patient can hear the conversation between the doctors and the patient. Therefore some patients would not mention their psychological problem if the doctors did not give private space or time for them.

Although some GPs said that providing special room could improve the service for patients with mental disorders, this idea was not the best choice. However, after joining the training, one of the program manager in PHC of

East Denpasar has been providing special space around the corner of the policlinic to assess patient with mental disorders.

> *"Yes…there's supposed to be one special room to explore longer… we only can give medicine so far, and after that it is hard to give psychotherapy… we also would not be able to explore in a good way. Mostly, when we felt very sure, we referred them, so for the setting in this PHCs is not that appropriate for psychiatric patients" (IDI_02)*
>
> *"We have provided a policlinic for patients with mental disorder, but the setting we only put the curtain at the exam room (first floor)…" (IDI_05)*

In contrast with the opinion of the GPs, the psychiatrist and program managers were not agree with the idea of providing specific room, because this would increase their workload. In the PHC, there are also other policlinics beside general policlinics, for example the Maternal and Child clinic, VCT clinic, TB clinic etc. If every program was organized by providing specific room or clinics, more health workers would be needed, while in the reality, the HWs are already overloaded.

> *"If we were asked to provide special poli, it's hard, because we usually have only one poli, if there 2 or 3 more, when a colleague is absent or what… who will be in charge in that room? That makes us also confused, we also don't have enough doctors, there are some PHCs may have enough doctors, but also some is not… there are also poli for children, elderly, and the doctors usually in the general policlinic. Then, how about the emergency room? (PM_N2)*

Moreover, the psychiatrist and CHWs were worried that by providing special rooms this might in fact create stigma and increase the barrier for the patient to come to PHC clinics. According to their experience, most patients would feel shame if they were found entering the room that are labelled for mental disorders or Psychiatric clinic. The psychiatrist said that in screening mental illness, a special room is not needed. The most important factor is the awareness of the GP and other health workers in thinking about mental aspect of the patients, especially when they came with recurrent physical complaint.

> *"Noo… if only for control, special room is not needed… even in here (hospital) we don't have special room… the room is similar with the other room, screening may be only need 15 minutes, and the GP supposed to be able to do it in 15 minutes."(IDI_01)*

Although the screening could be applied in the simplest way, availability of diagnostic form or flow chart are also considered as important tools in diagnosing and treating suspected cases. If the flowchart is available, as

suggested in the mh-GAP by WHO an exploration of mental problem and its management will be easier and faster. Almost all the PHC in Denpasar do not have any flowchart for mental illness assessment in their policlinic. The GP only apply the knowledge and experience that they still remember from medical school.

The program managers are also still confused about managing and organizing the program in their area. Although they joined the training a few months before, the clear operational procedures were not given. One of the FGD participants said that she did not know what material and facilities were supposed to be provided in their policlinics for psychiatric patients.

3.4.5 Barriers in Financial Aspect

Mental health service in PHC could be integrated in the general policlinic along with managing other chronic disease such as hypertension or diabetes mellitus. However, when the patient is suffering from schizophrenia, a home visit will be more appropriate. For this, the PHC could use the PHC's motorbike or ambulance to visit the patients.

In the interview with the head of health department of Denpasar district, it is evident that there is no specific budget allocated for mental health services in PHCs. The budgeting that is allocated in the general policlinic mainly covered the medicine and transport fees for home visits or referrals for all cases. It was also confirmed in the interview with the GP in PHCs, where there are no specific funding resources for MHS program. The PHC only received the total amount of money from local government to run all health programs, including the preventive and curative programs. It depends on the priority of the head of PHCs to allocate the funding on each program.

> "*Not specifically… the mental health is included in the basic health service and we only provide the available medicine. Under basic health service program, there are various cases to be treated and the money is not specifically allocated for mental health program" (IDI_03)*
>
> *"No… it is not available. For the transport… we usually have BOK money (Bantuan Operasional Kesehatan- Operational Budget for health), which can be used for funding several programs. We choose the programs that are affordable to be organized by that money. Usually the head of PHCs will decide which programs are considered important, for instance if this mental health program is important they can put in the BOK allocation. We usually got the money for transport."(IDI_02)*

Other sources of funding were also available for mental health program, such as: from several pharmaceutical companies. But it is not enough to cover all mental health cases in Bali and it is not sustainable program. In addition, the procedure to distribute the money is very complicated then

most of the funding was not received by all PHCs. For instance, one of the psychiatrist said that a few months ago, when there are an event of "Stop restraint day", a lot of medicines were supplied by a pharmaceutical company through the health department, but the medicine was not distributed properly to the community and most of them expired. It is not widely accessible for the community.

> *"Yes… not APBN (national financial support), but ministry of health, that is different such as schizophrenia, also a few month ago there are management of schizophrenia during the day of schizophrenia in October… that is usually from global fund, specifically once in a year, not regular, world mental health day to stop restrain… it is dropped in the community through NGO, also from pharmaceutical company a few days ago for Indonesia, to stop Pasung (restrain)." (IDI_01)*

There are no additional incentives for the program managers or doctors who work on mental health area. They have been given regular salary and incentives based on their level and functional or structural position in the PHCs.

3.4.6 Poor Communication and Supervision from Local Hospital Leading to Higher Chance of Lost to Follow-Up Cases

Several minor obstacles that were found by the doctors and program managers in providing mental health care are lack of communication and coordination between the health workers in PHCs and the referral hospital. The respondents of IDIs and FGD participants explained that that back referral letters and supervision from the specialist is not available in every PHC. When this issue was asked to the psychiatrists, they said that the psychiatrists in the Psychiatric hospital would only give back referral letters to the district hospital from which area the patients came from.

Meanwhile, the program managers and doctors said that back referral letters are needed especially in recording and reporting the cases, then later on the PHCs would be able to make a plan for follow up. Mostly, the PHC did not know if the patient that they had referred was still in the hospital or had been released, until the patient of the family came back to the PHCs. The back referral letter is also useful for the program managers to know about what type of medicine was given, so they can calculate the stock for the next year/ trimester.

FGD Program Managers

Question : So, how is the back referral system in mental health care?

All PM : well… it is supposed to be done by sending back the letters to us...

Question : So…is it works well?

PM_W1 : Not really, I can say… mmm… never.

PM_E2 : In my experience, from Bangli we got information that actually the letter had been given to the family (care takers). But the instruction to the family was not clear. The letter was supposed to be given back to the PHCs staffs, but most of the patient's family did not bring the letter to us.

PM_N1 : I think… when we send the patients to the district hospital, the back referral letter is usually taken at the registration desk and may be it did not received by the psychiatrist in the hospital's policlinic. It is usually only taken for filling the form of the social insurance. Just like most of my elderly patients, most of them who are covered by

3.4.7 Poor Recording and Reporting System which causes Double Record and Lost to Follow-up Cases

Before the workshop, only a few PM reported the cases of Mental Disorders in their area. But, after all the program managers joined the workshop, they were asked to refresh their reporting system by filling in the standardized reporting form. Then they have to submit the report every month to the health department of Denpasar district. However, as mentioned in the previous section about human resources issues, not all PHCs sent the right person to attend the workshop, so that some PM were still confused about how to classify new and old cases which is asked in the form. Some patients might not be recorded in the previous visit, so some patients may be recorded as new cases again. Therefore double recording happens very often.

The double recording also happens because the reporting system still manual (paper based), not online and not linked between PHCs and other health service. While the mobility among the patients is often high, for instance, one patient may have lived previously in West Denpasar, then at a later time moved to East Denpasar. When the patient came to the PHC in East Denpasar, he/she will be recorded again as a new case. In addition, a large percentage of the population in Bali are migrant and are in possession of more than 1 valid citizen card, therefore patients who originate from other province may be recorded as a new case although they have already had regular treatment in the PHC in their town of origin.

"In the border area for example, the border of PHC coverage is confusing, people tend to go to the closest places. Also in the area where the mobilization of the people is higher, like in Denpasar…" (IDI_01)

"There are a lot of people who are suffering mental disorder do not have ID card, because they could not get it by themselves. Also because the community only knew that when they found cases of mental disorders they have to go to the hospital, they did not know that they could go to PHCs." (PM_W2)

3.4.8 Lack of Awareness and Support from Family and Local Community

Awareness and support of the family and local community are considered important factors in delivering care to patients with mental disorders. Sometimes the health workers faced difficulties when referring the patient to the hospital if the family felt that treatment was ineffective. In some cases, the family were not aware that one of their family members was mentally ill. The family or the neighbours will take care about the affected person if they are dangerous and attack other people. When the patient's condition is severe, the family tends to restrain them or lock them in a small room. It was reported by the GPs and PM in FGD reported by the program managers in the FGD.

"I have a case that I have visited. We thought that he is having mental disorder, but the family said that he is normal. The family said that when he was a child, he was ill (fever), and since then, sometimes he talk or just silent, also he did not taking care of himself, such as shaving his beard, take a shower, etc. When we wanted to treat him, the family did not agree. They kept saying that their child is not mentally ill."(PM_S2)

In my area, there are also some cases where the family did not have sufficient knowledge about mental health and mental disorders. When we suggested the family to bring the patient to hospital, they refused because they had brought the patients so many times and the condition was not improved. The family gave up after they tried so many times. The other case, the family was willing to give the medicine to the patient, but the patient did not want to take the medicine..." (PM_S4)

Support from family is crucial for following up the treatment after the patient were released from the hospital. The family should make sure that the patients take medicine every day based on the instruction. However, some patients re-hospitalised several times. In emergency cases, such as when there were psychotic patients who behaved threatening to other people, the PHC staff would need the family to hold the patients when giving injection and referring the patient to the closest hospitals. However, some people were not willing to help because they were afraid to the patients.

The social support sometimes is not sufficient….. After the patients treated in the hospital and their condition improved, then they are sent back to their home. The family supposed to be someone who gave care to the patient…It is impossible for the health workers to give all of daily care for the patient. Sometimes, the patient relapsed and this is the responsibilities of TPKJM to bring the patient to the Mental hospital"(IDI_03)

The program managers said that the community support was also important in finding cases of mental disorders in their area. For example, in the PHCs in East and North Denpasar area have involved the community workers to find new cases of schizophrenia in the community. Since then they have found and treated or referred more cases recently.

3.4.9 Stigma and Discrimination toward Mental Disorders

Mental disorder is still considered as a humiliating disease and people who are diagnosed as having mental disorders will be discriminated in their social life. Some patients who came to the PHC were found they could not openly talk about their psychological problems. Commonly they come with chronic physical problem, such as headache, gastritis or insomnia. Some doctors in PHCs may aware about the psychosomatic sign, but sometimes the patients denied it. As mentioned by the respondents, most of the patients were afraid of labelled as "crazy" by the community. Many factors may be related to the denial and perception of patients. Education, occupation or their personal characteristics will influence the acceptability of the patient about mental illness. The Balinese community still stigmatized people with mental illness. Mainly if someone has been diagnosed as schizophrenia, most of the family will hide and locked them in the small room.

"Stigma is still exists. May be only 20% of the population can accept. This information coming from the family member of my patients in my private practice… they are closed…term of schizophrenia is still taboo among the community. But if I said that the patients were only suffering from mild depression, they will come back again to continue the treatment…. Even though if the family were health workers. A few days ago a nurse brought her kid to my practice and she also blamed other thing that causing the illness of her child. May be 20% people would accept if they have experience or read about it before…" (IDI_01)

"I have some experience related to stigma. Usually, when we have referred the patients to the mental hospital, we did not know what they have got there, when they were back to the family, may be because the society still stigmatized the patients and usually they said… hmmm "he/she is ex-schizophrenia, etc…" (PM_W2)

3.4.10 Cultural and Traditional Belief toward Mental Disorders and Its Impact to Adherence

Although the majority of the people in Denpasar are living a modern life and most people have higher education, some patient and/or the family still believe in the relation between mental illness and religion. In Balinese culture, mental illness is seen as disease that caused by the magical power, such as devil spirit. In many cases, some family still believe that people become crazy as the punishment from ancestor. The balinese term for mental disorders, such as *bebainan* for Psychoses illustrating that people still blaming black magic for the mental illness. This is stated by the Psychiatrist, who has some experience related to the role of culture and religion when treating severe mental disorder.

> *"Yes, there are still a lot of people think that the patients is not mentally ill… For example, One of my patient's mother said that her son sometimes talk to the spirit that we could not see, and she did not think that her son is mentally ill… in the Balinese term it is said 'melik' ability of communicating with a spirit" (PM_S3)*
>
> *"It is also back to the culture of the family… 'Oh this is done by someone'…. Well, it is still exist and still become an obstacle. In a research that was conducted by Professor Suryani, there is a Balinese terms for Psychotic called 'bebai'… for mutism it called 'bebai bongol'…because this kind of patient usually do not speak at all." (IDI_01)*
>
> *"Yes… most of the cases were found by home visit. Some family still hide the family member who had symptom of mental disorder. They would not come to the PHCs until something bad happened. Such as suicide…" (PM_W1)*

Regarding the treatment for patients with mental disorders, sometimes the family member believes that they need to provide traditional medicine or carry out ceremonies for the schizophrenic patient, because they still believe that mental illness may be caused by supra-natural power. Sometimes if it was linked to the punishment from god or their ancestor, some patients also underwent religious ceremonies besides consuming the psychiatric medicine. The ceremony or alternative treatment may be helpful if it is not life threatening. It might help the patient and the family to feel better and safer psychologically. However, some ceremonies were dangerous for the patients. In the interview, the psychiatrist told about her experience related to the negative impact of traditional ceremonies on the patients.

"One of my patient…Anxiety case for example… besides taking medicines they also asked to holly people (called Balian)…and then they are given a holly water... it is exist. They are asked to make offering and specific ceremony. Some of them followed it and finally become priest (Pemangku)... may be the fact is only the psychological factor… may be they feel calmer and relax by that… I think this is good I supposed, it goes together…" (IDI_02)

"We suggested the patients to try both medical and ceremony… but we usually don't really know what kind of ceremony it is. A few months ago, one of my patients jumped from the high temple in Mengening (name of village-sacred area). He jumped to the river and he got fracture on the cervical (Neck) bone… now he is suffering of paralyses for the rest of his life… such a pity, he is psychotic and also paralyses… And surely become harder for the family to take care of him." (IDI_01)

"Yes, because they did not have enough money and they felt did not cured by the medicine from the Hospitals, then they tried alternative medicine. They went to Balian, tried herbal medicine, etc, but the patients did not getting better."(PM_W1)

3.5 Strategy in Improving the Mental Health Provision in PHCs in Denpasar.

3.5.1 Findings from Interview and FGD

To answer the third objective of this study, several questions were asked to the IDIs respondents and FGD participant about certain strategy that they knew were applied in other area. The Psychiatrist told that there are a PHC in Abiansemal sub-district, Badung (one of district in Bali), had run a Psychiatric policlinic for more than 5 years. The PHC was selected for a pilot project of community based psychiatric care, which was organized by an NGO. Up to now, the PHC provides one day every week (which is usually on Tuesday) for Psychiatric services.

This PHC provides several types of psychiatric medicine, for instance haloperidol, clorphromazine, Diazepam, Trihexiphenidil, Phenobarbital, etc. They have regular planning for the medicine supply every month. They also have good registration and medical records for the new and old cases in their area. Every Tuesday about 2 doctors from Psychiatric Department of Sanglah Hospital were in charge to provide service to the PHC. Several nurses were in charge to help the doctors in the policlinic in recording and reporting the cases as well as following-up the patients.

"In Blahkiuh… it was initiated by one of our senior psychiatrist, it provided services for mental health and drug abuse cases, and at that time the head of the district supported because of reinforcement from the psychiatrist. Until now still continue because they have known by the Mental Hospital, that the PHC provides some basic medicine, then all the follow up cases, mainly the one from Badung area and North of Denpasar who were discharged from Mental Hospital in Bangli, were referred back to that PHC. We send our student every Tuesday to give service at the policlinic in that PHC. It is also because the location is not too far from Sanglah Hospital, then we are able to send our doctor every week." (IDI_01)

"In Our PHC, we provide one day for patient with mental disorder, I give information to the patient to take their medicine every Tuesday, but we don't have special room, because of no budget available, we only provide a separated table and add curtain. Every month I will resume number of patient that we have in our area and make a plan for applying medicine to the district health department. We have about 60 follow up cases of schizophrenia, and sometimes we did home visit with the community workers (Jumantik)" (IDI_ED2)

The program managers and GPs from one of PHC in East Denpasar stated that after they joined the training, they started providing better service for patients with mental disorders in their PHC. The program manager has made simple guidelines to be used in screening mental disorders among the general patients, and she told the doctor to be more aware of any cases of mental disorder they found. Also every Tuesday, all psychiatric patients could get their regular medicine. However, the GP and PM in this PHC did not know about the mental health Gap Action Program (mh-GAP-IG) which is launched by WHO. The GPs only use the diagnoses guideline book which was obtained when they were at medical school.

In the PHC East Denpasar, the program manager also prepared a special corner for psychiatric consultation, which is very simple by providing additional table in existing policlinic, and add curtain in case the patient need private consultation space. More cases in this PHC were also found by involving the community workers, such as Cadres and "Jumantik". The CHWs were asked to distribute flyer about mental health to the households.

"We have about 27 patients that we visited every month. In the home visit we asked the patient's family if there any other people also have symptom of mental disorders in their neighborhood. Sometimes we also asked the Jumantik (community workers who are usually do the survey for mosquito larva control) to bring some brochures and deliver information to the community in their area. If there any cases of mental disorders, they will call us (the PHC's health workers). That's how we can get more patients recently." (PM_E2)

3.5.2 Findings from Published Articles

To address the gap between prevalence psychiatric cases and therapy for in LMICs, WHO has launched and published mh-GAP IG. It is an international guideline which provides a simple chart to assess and manage patients with mental disorders in primary care setting. The mh-GAP IG consist of guidance to manage several cases such as: depression, psychosis, bipolar disorders, epilepsy, developmental and behavioural disorders in children and adolescents, dementia, alcohol use disorders, drug use disorders, self-harm/suicide and other significant emotional or medically unexplained complain. All of the disorders were a priority in the guidelines because of the impact in significant mortality, morbidity and disability, as well as causing high economic cost and associated with violation of human rights (WHO 2010).

The mh-GAP IG is provided for a wide range of professionals who work at the first and secondary level. At the first level it can be used by general practitioners who work in primary health care, nurses, midwives, dentists and pharmacists. Because the guidelines are very simple and clear, it can be used by very busy health workers in non-specialized setting. At secondary level, the guidelines can be provided for the GP and Nurses as a part of clinical team in the district hospital, and for the psychiatrist in mentoring, supervising and referral.(WHO 2010)

Several strategies that worked very well in scaling up mental health service in lower-middle income countries based on the articles review include: stakeholders and community involvement in creating national and local policy, providing training for health workers and involving community health workers to enhance case finding and health promotion.

The study which was conducted in rural Ethiopia (sub-study of PRIME pilot project) tested the Theory of Change (ToC) in establishing the Mental Health Integration Plan for low income country. ToC was assessed by conducting workshop among various key target groups. The study reported that ToC allowed all key stake holders and community members to express their perception about mental health care services as well as involving the participant to develop supporting policies. The strength of this strategy was the raising of awareness of the leaders and stakeholders in increasing budget allocation for mental health service, facilitating resources allocation, such as psychotropic medicine and health workers allocation in PHC. In the workshop, the traditional healers were also invited to stimulate the awareness to reduce stigma in the community. The researcher suggested this method to be applied at the first step of integration of MHS provision in Primary care. (Hailemariam et al. 2015)

There are 6 main factors that discussed in several published articles relating to mental health integration in primary care in LMICs, which are reviewed by Peterson. The first is the task-shifting from the specialist care to non-

specialist health workers. For allowing this idea to be effective, adequate number of specialist also needed for supervising and delivering regular training for doctors and nurses in primary health care centres. The other important step to be taken including providing sufficient infrastructure, giving education to improve mental health literacy in the community, facilitating the people with chronic mental disorder to be included in social life and ensuring they got adequate care. The last is working together with other sector in the community.(Petersen et al. 2011)

The other study suggested that involving community health workers to improve adherence and rehabilitation for people with mental illness would be very helpful. Community health workers were expected to help in health promotion to reduce stigma and discrimination in their area. However in that study, the lay health workers faced some difficulties when they visit the patient at home, for instance the other family member would know that someone who were visited is suffering from schizophrenia. Some participants reported that the family of the patient would respect the health workers more than the community workers, mainly when they deliver about mental health material (Balaji et al. 2012).

Capacitating the existing CHWs also reported as promising strategy to empower the local people in dealing with mental health problems. In the study in Africa, the CHWs who were given training reported that they felt more confident to help people with mental disorders. The CHWs were able to give practical support such as helping affected people in the community to seek medical treatment as well as gaining social support from other people. The CHW reported that they tried to create self-help groups to support women who have psychological problems and provide a space to share their problems. However, the study also reported that since most of the CHW were women, and in Africa they were still marginalized, they experienced obstacles in helping children or women who are victim of sexual abuse (Petersen et al. 2012).

CHAPTER IV
DISCUSSION AND STUDY LIMITATION

4.1 Discussion

The potential coverage of mental health services in PHCs in Denpasar, including availability of PHC, human resources and medicine, it is still far lower than the need of the target population in Denpasar area. Although there are also a lot of private clinics and specialist clinics, the treatment of psychiatric disorder can be very expensive and some people feel stigmatized when they visit psychiatrists.

In the national survey, the estimated cases of schizophrenia in Bali were about 2.3%, meaning that it is estimated about 1,673.9 people were affected by severe mental disorder (Schizophrenia) (Ministry Of Health RI 2013b) . However, the number of severe mental disorders which were reported by all PHCs to Health Department was 50% lower than the prevalence from the national survey. (Department of Health of Denpasar 2015). In fact, the prevalence in the community must be higher since the data from private GP and psychiatrists clinics were not reported to the Health Department and not included in the calculation of prevalence in this study. In addition, there are also a lot of patients are still untreated because most of the PHCs waited for the patients to come to the PHC clinics.

The ratio of PHCs/population in Denpasar is about 1 per 100.000 population. While the national health system mentioned that a PHCs should cover about 30.000 – 40.000 people.(Anon 2012) Based on this regulation, the number of PHCs in Denpasar seems to be lower than the national standard, but, beside the public health services, there are a lot of private clinics and hospitals. Mainly people who have more income can go directly to the private clinics or psychiatrist clinics.

Regarding the low coverage of mental health service in PHCs, findings of this study suggest that there were more barriers found in providing mental health service in PHC level. Although the central government is committed to improving mental health services at the primary level by launching the mental health act in 2014, the policy is still partially understood and not adopted by all local governments. Hailemariam stated that inclusion of mental health in the national policy and plan will encourage the improvement of other aspects (Hailemariam, 2015).

Even when the policy of mental health integration is elaborated at national level, it does not mean that it can be implemented directly to the lower level. Much work needs to be done, such as: preparing screening form, diagnoses and treatment guidelines, referral procedures which take time. The resistance and contradictory argument between the stake holders,

health providers and local leaders also happens. For instance, in Australia, to get the program become functional, 5 years were needed. However, in some countries, like in Argentina, Brazil, Chile and Saudi Arabia, the integration were successfully implemented by family medicine approach (WHO and Wonca 2008).

Poor dissemination of the national policy to the lower level eventuated in the PHC's staff not having a clear understanding about how to manage the service. Similar problems were also faced in Nepal, where the policy about mental health was established in 1997, where the government have commitment to provide basic mental health services by integrating it in the existing PHCs. However, the policy is not yet implemented and the resources remain limited. Mental Health cases are still treated in the hospital rather than in primary care (Balaji et al. 2012).

In Denpasar, all the PHCs are situated very close to community housing and are more reachable than the hospital. The respondents of the IDI and FGD reported that going to PHC for mental health consultation would be less stigmatized in the community as compared to coming to psychiatric clinics/hospitals. It is because in primary care facilities, the patients would feel that they were treated in the similar way with the other patients. They would not be judged as mentally ill person. However, the health workers have to be aware of psychological problems when patients came with similar physical complaints.

Providing care in mental health in primary care setting will facilitate a holistic approach and treatment which is very important for patients with mental disorders. WHO suggests providing MHS in PHC in order to reduce the gap between the mental health prevalence and availability, accessibility, affordability and cost-effectiveness of the mental health treatment.(WHO and Wonca 2008) Furthermore, integrating MHS in PHC also aimed to reduce stigma, discrimination, and violation of human rights as it usually happens in psychiatric hospitals.(Petersen et al. 2012)

Human resources issues and poor recording and reporting systems were found as the most important issues on this study. This topic was also found as classical problems in improving health services in lower middle income countries. Health workers usually faced work overload because they have many responsibilities. (Ngo et al. 2013) It is also a big problem in Indonesia. Based on the data of the council of medical doctors, which was cited in Health Statistic report of Indonesia, the ratio of GP nationally was 36 GPs/100,000 populations, and the ratio of GPs per PHC was 2 GPs/ PHC. In Bali the ratio of GP was 67 GPs/ 100,000 populations and 3 GPs/ PHCs. (Ministry Of Health RI 2013a) While in Denpasar, based on the data from Bali Health Profile report, the average ratio of GPs per PHC was 4 GPs/ PHCs. This ratio is higher than the Bali province ratio. However as told by the GPs in the interview, not all the GP works as functional doctors, but some of

them have to work on management. Therefore the GP in policlinic are usually felt overloaded.

The specialist ratio in Bali was reported about 8 per 100.000 population which is more than the national target (6/100.000 population).(DGHE 2011) The calculation for the specialists is not considering the type of specialization, where from interview with the psychiatrists revealed that there are not enough psychiatrists to cover all population in Bali, and most of the specialists are working mainly in the capital city, Denpasar.

Some literature found that shifting the task from specialist to the GP in assessing mental disorders in primary setting can be effective, especially if the GP are able to conduct screening, psycho-education and brief behavioural intervention. For instance: giving education to manage depression and anxiety, giving motivation to reduce alcohol and substance abuse and personal problem solving. The psychiatric diagnoses and treatment is not an specialist exclusive when the GPs in primary care were aware about mental disorders (Ngo et al. 2013).

In Belize, the successfulness of integration of MHS in primary care was facilitated by the introduction of psychiatric nurse practitioners, combined with the supervision by the psychiatrist. Even though this approach did not result in fully integrated mental health services, shifting the task from specialist setting to a trained nurse could reduce hospitalizations. It also improved the accessibility of MHS and prioritized human rights, since the patients still lived close to the family. The psychiatrist nurses were given the authority to prescribe medicine for mild mental disorders under the specialist supervision, while the severe cases had to be referred to the specialist.(WHO and Wonca 2008)

In the MH act, it is stated that the national government, local government and community are responsible for recruitment and improving the quality of human resources in mental health care. Enhancing the quality and competencies of health workers in mental health can be achieved by regular training and workshops. If nationally the human resources for mental health were not enough, the national government has to accelerate the recruitment by providing more opportunities for GPs to take specialization, and also by involving the internship doctors or doctors who are pursuing specialization in psychiatry in providing MHS in primary level and secondary level.(Anon 2012).

Besides the human resources issue, most of the respondents explained the scarcity of psychiatric medicines in the PHCs hinders the MHS delivery. From the study results, it can be concluded that the availability of the psychiatric medicine should be coordinated by the PHCs and stake holders. The stake holders have to include basic medicine for mental health patients in the list of essential medicine in the annual planning. While the program managers have to submit the annual report about the mental disorder cases

that they have found in their area, in order to propose the amount of medicine that they need in the next term. By providing an improved recording system, the planning and estimation for the medicines would be better and out of stock issue or excessive stock can be reduced. However, some PM did not have a good recording system and were still confused in classifying the new and old cases.

In the Mental Health Act, 2014, it is explained that the provision of medicine have to be provided by the regional government and stake holders. The psychopharmacologic medicines that are included as essential medicine are anti-psychoses, antidepressant, anticonvulsant, and several medicines for treatment of anxiety, panic, insomnia and obsessive convulsive. The local governments have to guarantee that all of the medicines are included in the social insurance system.(Anon 2012) Among the case of mental disorders in high resource countries, it was reported that about one third of people were not treated and 2% of people with mental disorders were not treated in LMICs.(Eaton et al. 2011)

Financial sources for mental health in Indonesia is regulated and supposed to be included in the National and regional financial planning. Besides that, the source of funding could be organized by the community, private company or NGOs. Continuing mental health services should be provided for all patients with mental disorders to help them be able to live as normal people and have their function in the family, education, working places and community.[24] In Nepal, the government also did not have clear data about the budget allocation for mental health, including where the budget comes from and how it would be allocated. This is because some budgets also have to be allocated to the other area, such as Ministry of Social Welfare and Ministry of Education.(Balaji et al. 2012)

In the mental health act, it is stated that referral systems have to be arranged in two ways, vertically or horizontally. Based on this regulation, both the PHCs and the psychiatrist in the referral hospitals have to improve their medical communication by applying clear referral letters. Also the patients or care givers have to be informed as clear as possible if the referral letter is very important not only for the registration purposes but also for the patients improvements. (Mental health act, 2014) Peterson in the review stated that although the services are provided in lower level, framework for supervision and referral pathway have to be clearly established and for this, adequate number of psychiatrists is needed as well as some supporting facilities such as psychotropic medicine.(Petersen et al. 2012)

In the United States and some high income countries, the collaborative care for MHS in primary care level still not adopted by all providers. In lower middle income countries, the challenges were predicted to be even bigger since the primary care are usually have fewer resources and weak mental health infrastructures.(Ngo et al. 2013) To reduce this problem, WHO has

developed mhGAP-IG, the diagnostic guidelines for assessing mental health problems in non-specialized health setting. The guidelines describe in detail about the signs and symptoms of several common mental disorders, what steps could be taken and how then how to manage the patients (if the patients could be treated in the primary care facilities or have to be referred to the higher level). The mhGAP-IG could help the GPs, nurses or other non-specialist health workers to diagnose the patient faster.(WHO 2010)

Petersen concluded that in improving MHS service in primary care level the basic problems that needed to be addressed were infrastructure, human resources, supervision and collaboration with community. Generally, task shifting approach, collaboration with multi sector community, and self-help approach is seen as promising strategy in filling the treatment gap for patients with psychiatric disorder in LMICs although supervision from specialist and good referral system is also important.(Petersen et al. 2012)

Collins et al. reported that there are 4 main issues which are addressed as grand challenge in enhancing mental health care integration in primary care. First of all, the integration have to use system-wide approach which is aimed to create coherence and synergy between various elements of health care, such as key stake holders, community as a users, health information system, technologies and financing. Secondly the use of evidence based intervention in capacity building of the health workers by giving regular training to improve knowledge and skill based on the latest intervention. For instance by using mh-GAP guidelines to train health workers and encouraging them to implement the guidelines. The third, understanding environmental influences, where it is related to the understanding of local community towards mental illness and at the system level, the health facilities have to be available and accessible for the community. The last is use a life course approach, since mental health is closely related to physical and social exposure in every stage of life. For instance mental health problem for children, adolescent, or elderly are different need specific approach. (Collins et al. 2013)

4.2 Study Limitation

The coverage of MHS in PHC in Denpasar could not be measured precisely in this study because of poor recording and reporting systems. Therefore in this study, the calculation of several aspects such as effectiveness coverage could not be provided. Ideally, progress in scaling up the mental health service must be measured by comparing change in effective coverage, for instance the proportion of affected population who receive appropriate treatment. But this data were also not available in the form of government publication and other scientific literatures in LMICs.(Eaton et al. 2011)

Since this study did not involve the Pharmacist of the PHC, information about the availability and management of psychiatric medicine could not be

explained more. Furthermore, the program managers and GP did not really understand about supply and stock for psychiatric medicine in the PHCs.

The other limitations also might influence the results for example the exclusion of the patients as a user's made the aspect of acceptability in the Tanahashi framework could not be explored more. The patients were not included because there was an ethical issue related to relapse and side effects of the interview. The limitation in time and funding also become one consideration to exclude the patients from the list of respondents. Therefore, the acceptability of the respondents was only measured qualitatively by asking the CHWs in the FGD.

CHAPTER V
CONCLUSION AND RECOMMENDATION

5.1 Conclusion

5.1.1 The coverage of MHS in PHC could not be measured precisely based on the Tanahashi framework since the secondary data is not available for every aspects of coverage. Overall, although the PHC were available and geographically accessible the potential coverage is still low because the health workers did not have good competency and awareness on how to deliver MHS in PHCs. The MHS is covered by social insurance, but because the scarcity of medicine in PHC level, the patients tend to be referred to hospital. In addition not all patients have an ID card, which meant that some of them have to pay for the service. The actual coverage in term of number of cases reported is still about 50% lower than the estimated prevalence of mental disorders in Bali Province, since the health workers only reported the cases that were found in the PHC policlinics. The cases of mild mental disorders is still underreported because the HWs still pay less attention to psychiatric problem of patients.

5.1.2 Several Opportunity were found to be the strong point for improving MHS integration in PHCs such as the availability of national policy, accessibility of PHC as compared to the hospital, and the perception of the community that going to PHC to seek help in psychological problem was less stigmatizing when compared to presenting at the psychiatrists clinics or mental hospital. However there are still more barriers than the opportunity. The most important barrier is the human resources issue, including the number of skilled health workers in delivering MHS in PHC level. The other problems unearthed hindering of the improvement of MHS included: lack of funding, scarcity of medicine and poor family support for the sustainability of the therapy for the patients with mental disorders.

5.1.3 Several strategies which were applied in other countries such as involving the key stake holders in creating policy for MHS from the national to local level was found to be effective in improving awareness of the stake holders and community about the importance of considering MHS in budget and other resources allocation. The other strategies were shifting the task from the higher level of psychiatric care to the lower level would help to reduce the gaps between prevalence of mental disorders and the treatment. This task shifting would require regular training for health workers and supervision from the Psychiatrists. The mh-GAP IG which is provided by WHO could be implemented to help the health workers in primary care level in

screening and managing patients with mental disorders. In addition, involvement of the community health workers in case finding and health promotion would help the PHCs in improving their performance as well as reducing stigma and discrimination in the community.

5.2 Recommendation

5.2.1 In order to improve coverage of MHS in PHCs in Denpasar, several steps should be taken. First of all the dissemination of the national policy to the local key stake holders is crucial in order to improve the awareness of the local government in including the mental health programs as a priority in the health care service. This effort also will tackle the problem in scarcity of funding, medicine and human resources.

5.2.2 Training for health workers related to mental health service provision is important and should be organized regularly. By training GPs and nurses in PHCs, the service could be shifted from specialist care to the primary level. Several benefit of the task-shifting are: (a) improving the access of the MHS for all community, mainly in rural area ;(b) reducing the budget which are needed to provide psychiatric care service, since paying GP and Nurse is cheaper than specialist.

5.2.3 The Department of Health should start to include the basic psychiatric medicine in the package of basic medicine for PHCs. And the PHC should improve the recording and reporting system since it is related to the planning of medicine provision. In addition by improving recording system, the instance of double recording can be reduced and it is important for the continuation of follow up for the patients.

5.2.4 Involving Community Health Workers is one of most feasible strategies in order to improve case finding within the community. From the FGD with CHWs it was found that the CHWs are willing to help the PHC in conducting health promotion and reporting new cases in their area. This was also recommended in the literature as long as the CHWs were given information and short training about mental health and mental disorders beforehand. The involvement of the CHWs will reduce stigma and discrimination, and also improve awareness of the community about the importance of mental health. The community should also understand that people with mental disorders should be treated as early as possible so as to prevent severe disability.

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Annex 1. List of Reviewed Literature

Title	Author	Suggested Strategy
Developing A Mental Health Care Pla In A Low Resource Setting: The Theory Of Change Approach	Hailemariam et al	ToC approach (stakeholders discussion)
Mental Health Care In Nepal:Current Situation And Challenges For Development Of District Mental Health Care Plan	Luitel et al	Task shifting and involvement of CHWs
Optimizing Health Service In Low And Middle Income Countries	Inge Petersen, Crick Lundb Dan J steinb	Decentralization of MH care (task shifting)
The Development Of Lay Health Worker Delivered Collaborative Community Based Intervention For People With Schizophrenia In India	Balaji et al.	CHWs involvement
Lessons From Case Studies Of Integrating Mental Health Into Primary Care In South Africa And Uganda	Petersen et al	Policy intervention and task shifting