PSYCHIATRIC MORBIDITY AMONG PATIENTS ATTENDING THE BANGETAYU COMMUNITY HEALTH CENTRE IN INDONESIA

Iwan Ganihartono*

ABSTRACT

GANGGUAN JIWA PADA PENGUNJUNG PUSAT KESEHATAN MASYARAKAT BANGETAYU, JAWA TENGAH, INDONESIA

Organisasi Kesehatan Dunia memperkirakan 20% pengunjung pada Pusat-pusat Kesehatan Masyarakat di negara berkembang menderita penyakit yang berhubungan dengan gangguan jiwa.

*Penelitian ini dilakukan untuk memperkirakan prevalensi gangguan jiwa bukan psikotik diantara pengunjung Puskesmas (Pusat Kesehatan Masyarakat) dengan menggunakan SRQ (*Self Reporting Questionnaire*), mengukur keberhasilan petugas Puskesmas mendeteksi adanya gangguan jiwa dengan menggunakan HSR (*Health Staff Rating*) serta memperkirakan karakter sosiodemografi pengunjung yang kemungkinan menderita gangguan jiwa.*

*Sebelum penelitian, dilakukan validasi terhadap SRQ. Validasi ini dilakukan dalam dua tahap, pertama responden diminta mengisi SRQ, selanjutnya responden diperiksa dengan mengunakan PSE (*Present State Examination*), nilai PPV (*Positive Predictive Value*) dan NPV (*Negative Predictive Value*) didapatkan dengan membandingkan skor responden dari SRQ dan hasil pemeriksaan dengan mengunakani PSE.*

Pada penelitian ini didapatkan bahwa prevalensi pengunjung yang kemungkinan menderita gangguan jiwa bukan psikotik sebesar 18,5%. Petugas Puskesmas mendeteksi kurang dari seperempat pengunjung yang kemungkinan menderita gangguan jiwa. Tidak terdapat perbedaan karakter sosiodemografi baik usia, jenis kelamin, pendidikan, status perkawinan, serta jenis pekerjaan pengunjung yang kemungkinan menderita gangguan jiwa dibandingkan dengan pengunjung yang kemungkinan normal.

Hasil penelitian ini menunjukkan bahwa peningkatan kemampuan petugas Puskesmas di bidang kesehatan jiwa tidak hanya meningkatkan kualitas pelayanan kesehatan di Pusat Kesehatan Masyarakat tetapi juga akan menghemat biaya pengobatan.

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*   Non Communicable Disease Research Centre, Ministry of Health, Republic of Indonesia.

INTRODUCTION

In developed countries, epidemiological studies indicate that a significant proportion of patients at the primary level of health care suffer from some form of mental disorder Fuglesang [1] commented that

"Only a small percentage of patients seeking treatment in western societies are actually suffering from a fatal or serious physical illness. Perhaps half of the patients have symptoms which can be attributed to a psychiatric origin"

However, it cannot be assumed that these findings can be generalized to developing countries. In these countries primary health care services deal with a high proportion of patients suffering from the effects of infection and malnutrition. Therefore information about the extent of psychiatric morbidity in primary health care in developing countries is essential for the health planners.

The present study was designed to estimate the prevalence of patients with non psychotic mental illness in a community health centre in the Genuk sub-district of Semarang Municipality (Map 1,2). In addition, the study set out to estimate the success rate of the community health centres health workers in identifying psychiatric cases. The third aims of the study was to assess the sociodemographic characteristics of psychiatric cases.

METHODOLOGY

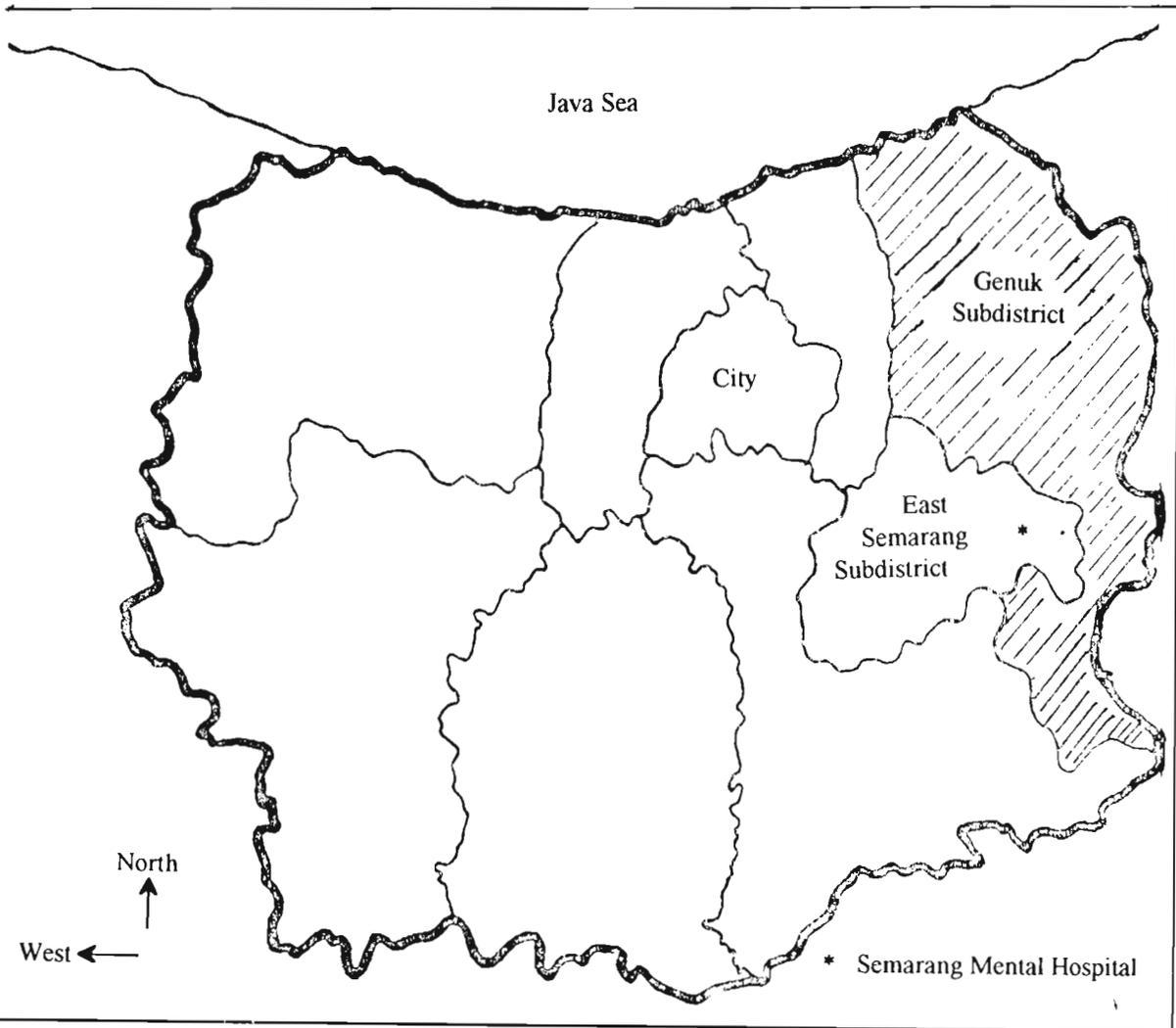A prevalence study of non psychotic mental illness among adult attenders at the outpatients section of the Bangetayu community health centre was conducted. The study was divided into two stages. The first stage comprised the validation study in which the psychiatric screening instruments (The Self Reporting Questionnaire) (Appendix 1) to be used to estimate the prevalence of non psychotic morbidity was validated against a psychiatric assessment using a psychiatric diagnostic instrument (The Present State Examination).

The second stage was the full scale study in which the prevalence of patients with non psychotic mental illness was estimated using the Self Reporting Questionnaire validated in stage one. During this stage the success rate of health workers in recognizing non psychotic mental illness was also assessed using HSR (The Health Staff Rating) (Appendix 1) instrument and the sociodemographic characteristics of the patients were examined.

SAMPLE

Based on the WHO estimation [2,3], it was expected that around 20% of attenders at health centre would suffer from mental disorders. In the present study, a sample size of 400 was selected as a manageable number to interview in a three month period. If 20% of patients were cases then a 95% confidence interval of 16 - 24 would be estimated.
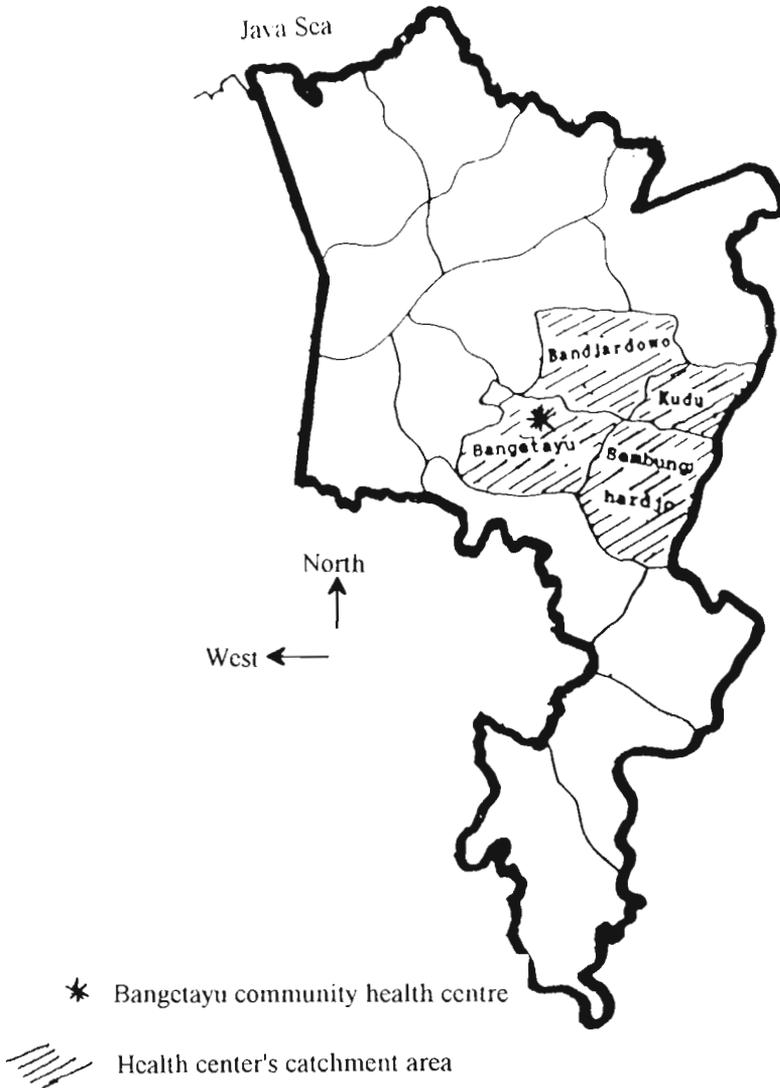
The sample of 400 patients was selected using the following procedure: A number (n) between one and seven was randomly selected. The ninth patients to attend the health centre on the first day of the study was selected. Following this patients every seventh patients was selected for the study until all 400 patients had been selected. The process took 91 days.

Java Sea

Genuk
Subdistrict

City

East
Semarang
Subdistrict

*

North

West ←

* Semarang Mental Hospital

Source : Peta Kotamadya Daerah Tingkat II Semarang

Scale : 1 : 50,000

Map.1. Semarang Municipality.

Java Sea

Bandjardowo

Kudu

Bangetayu

Sembung

hardjo

North

West

✳ Bangetayu community health centre

///// Health center's catchment area

Source : Peta Kotamadya Daerah Tingkat II Semarang

Scale : 1 : 50,000

Map 2.   Genuk sub-district.

Appendix 1.

Health Staff Rating

1. *A physical health problem only.*
2. *A mental health problem only.*
3. *A physical and mental health problem.*
4. *No health problem of any kind.*
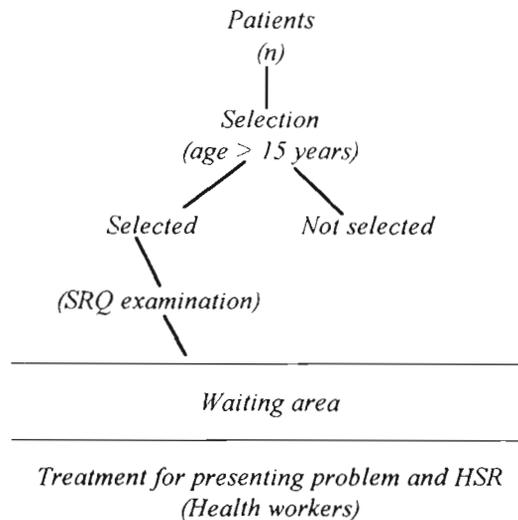5. *No rating possible.*

The Self Reporting Questionnaire
(Yes or No answer)

In the last month

1. *Do you often have headache ?*
2. *Is your appetite poor ?*
3. *Do you sleep badly ?*
4. *Are you easily frightened ?*
5. *Does your hand shake ?*
6. *Do you feel nervous, tense or worried ?*
7. *Is your digestion poor ?*
8. *Do you have trouble thinking clearly ?*
9. *Do you feel unhappy ?*
10. *Do you cry more than usual ?*
11. *Do you find it difficult to enjoy your daily activities ?*
12. *Do you find it difficult to make decisions ?*
13. *Is your daily work suffering ?*
14. *Are you unable to play a useful part in life ?*
15. *Have you lost interest in things ?*
16. *Do you feel that you are a worthless person ?*
17. *Has the thought of ending your life been in your mind ?*
18. *Do you feel tired all the time ?*
19. *Do you have uncomfortable feelings in your stomach ?*
20. *Are you easily tired ?*
21. *Do you feel that somebody has been trying to harm you in some way ?*
22. *Are you a much more important person than most people think ?*
23. *Have you noticed any interference or anything else unusual with your thinking ?*
24. *Do you ever hear a voice without knowing where they come from. or which other people cannot hear*

Flowchart of patients' selection in the full scale study

Patients
(n)

Selection
(age > 15 years)

Selected　　　　*Not selected*

(SRQ examination)

Waiting area

Treatment for presenting problem and HSR
(Health workers)

DATA ANALYSIS

(i) Estimate of prevalence of non psychotic mental illness

The total number of "possible cases" in the sample was calculated using the "negative predictive value" and "positive predictive value" calculated for the 5/6 cut off point during the validation study. The following formula was used

Best estimate of number of cases in sample of 400

$$\left\{ \begin{array}{l} \text{Number of patients} \\ \text{who scored above} \\ \text{5/6 X PPV} \\ \text{cut off point} \end{array} \right\} + \left\{ \begin{array}{l} \text{Number of patients} \\ \text{who scored below} \\ \text{5/6 cut off point} \end{array} \right\} \times \left\{ 1 - \text{NPV} \right\}$$

PPV = Positive Predictive Value
NPV = Negative Predictive Value.

A prevalence estimate of non psychotic mental illness in the Bangetayu community health centre attenders was then calculated using the formula:

Best estimate of number of cases in sample
--- X 100 %
Number in sample (n = 400)

(ii) The success rate of health workers

This refers to the proportion of psychiatric cases detected by health workers in the total sample. The comparison between the percentage of cases detected by the health workers and the percentage of cases estimated by the SRQ was used to estimate the success rate of health workers in diagnosing psychiatric cases in the community health centre setting.

(iii) Characteristics of cases

Analyses were carried out using the statistical package EPI info to determine whether significant differences existed between the characteristics of "possible cases" and "possible non cases".

RESULTS

Four hundred patients aged over 15 years were selected from 2,802 outpatients attenders by systematic random sampling in the Bangetayu community health centre between 14 January 1988 and 29 April 1988. The results were eighty one (20,3%) "possible case" patients and three hundred and nineteen (79,7%) "possible non cases" patients (95% confidence interval 16,3% - 24,2%).

(1) The prevalence of patients with non psychotic mental illness in the Bangetayu community health centre

Eighty one (20,3%) "possible case" patients and 319 (79,7%) "possible non case" were diagnosed by the investigator using the SRQ.

In the validation study stage, the SRQ had been validated using 5/6 cut off point for non psychotic questions. The result was that the SRQ had a "positive predictive value" of 60% and a "negative predictive value" of 92%. Thus we can estimate that 60% of the 81 "possible cases", that is, 48 patients, were in fact likely to be cases. Likewise, 92% "possible non cases" or 293 were likely to be non cases and 26 of these patients were likely to be cases. This means our best estimate is that 74 of the patients were suffering from non psychotic mental illness.

Estimated number of cases in the full scale study

	N	Estimated cases
Possible case	81	48
Possible non case	319	26
Total	400	74

The prevalence of non psychotic mental illness in this study was higher than the finding by Harding et al [4,5] , where the frequency of psychiatric cases in developing countries was estimated at 13,9%., but is lower than the 28.4% reported by Salan [6] for a health centre in Jakarta.

(2) The success rate of health workers

The ability of health workers to diagnose psychiatric cases was assessed by comparing the proportion of patients who were diagnosed as cases by health workers with the proportion of patients with non psychotic mental illness as estimated by the SRQ. Eighteen of 400 patients were diagnosed by the health workers as having mental health problems

Proportion of psychiatric cases detected by health workers and estimated using the SRQ

	Health workers	Estimated by the SRQ
Case	18	74
Non case	382	326
Total	400	400

However, the success rate of the health workers' diagnoses can not be directly determined from a comparison between the SRQ score and the health workers' diagnoses because the SRQ is not a gold standard. While most cases diagnosed by health workers may have been cases the success rate of the health workers in diagnosing psychiatric cases must be low since they only diagnosed 4.5% as psychiatric cases in a population that has an estimated prevalence of 18,5% of psychiatric cases.

(3) Characteristics of cases

The relationship between sociodemographic characteristics and patients with non psychotic mental illness (case defined as those who scored more than five on the SRQ) were examined by comparing the characteristics of "possible case" and "possible non case" patients. No differences were found between the sociodemographic characteristics of possible case and possible non case patients.

DISCUSSION

The prevalence of patients with non psychotic mental illness in the present study was 18,5%. That is roughly 1 out of 5 or 6 patients over 15 years of age attending the health centre suffered from some form of non psychotic mental illness. This was similar to the WHO estimate that one fifth of patients attending health services in developing countries have psychiatric disorders but was higher than the figures reported by Harding et al. in their investigation of primary health care in four developing countries.

In the present study the Bangetayu community health centre is typical of community health centre in semi-rural areas and it is quite likely that the prevalence of non psychotic mental illness in other community in semi-rural areas in Java would be similar to that found in this centre.

The comparison of the age, marital status, sex, educational status and occupational status between "Possible case and "possible non case" patients

Sociodemographic characteristic	Possible			
	Non case (N = 319)		Case (N = 81)	
1. Age (Years)	N	%	N	%
15 - 40	171	53.6	43	53.1
41 - 60	108	33.9	26	32.1
61 - 80	40	12.5	12	14.8

Chi Square = 0.3, 2 degree of freedom, p = 0.8

2. Marital status	N	%	N	%
Single	43	13.5	7	8.6
Married	231	72.4	60	74.1
Widow/er & divorced	45	14.1	14	17.3

Chi Square = 1.67, 2 degree of freedom, p = 0.43

3. Sex	N	%	N	%
Male	124	38.9	34	42.0
Female	195	61.1	47	58.0

Chi Square = 1.4, 1 degree of freedom, p = 0.7

4. Educational status	N	%	N	%
No formal	124	38.9	35	43.2
Low formal	118	37.0	26	32.1
High formal	77	24.1	20	24.7

Chi Square = 0.74, 2 degree of freedom, p = 0.69

5. Occupational status	N	%	N	%
Farmer	102	32.0	31	38.3
Non Gov worker	107	33.5	21	25.9
Housewife	64	20.1	15	18.5
Retired	24	7.5	7	8.7
Unemployed	5	1.6	1	1.2
Student	11	3.4	4	4.9
Government worker	6	1.9	2	2.5

Chi Square = 2.67, 6 degree of freedom, p = 0.84

The success rate of the health workers in identifying patients with non psychotic mental illness in the present study was low and the majority of patients with non psychotic mental illness attending the health centre were only being treated for their presenting symptoms. This means that they were more likely to undergo inappropriate medical investigations which are often expensive and can be dangerous to the patients [7.]

The estimation of the health workers success rate is lower in this study than in that conducted by Salan in the west Jakarta community health centre. He found that 63% of all psychiatric cases who were diagnosed by a psychiatrist were also detected by health workers. The differences in the success rates is possibly caused by the fact that all of the health workers in Salan's study were doctors who had been trained in psychiatric management. Harding et al [8] also found that the accuracy of diagnosing psychiatric patients by health workers increased dramatically after they had been trained in psychiatric management.

CONCLUSION

The prevalence of patients with non psychotic mental illness in the Bangetayu health centre, a community health centre that is situated in the Genuk subdistrict, Semarang, was substantial (18,5%).

Health workers at the health centre detected less than a quarter of all cases of non psychotic mental illness.

There were no statistical differences observed in the sosiodemographic characteristics (sex, age, education, occupation, marital status) between "possible cases" and "possible non cases" This could be because there are no

differences or because the measurements used were not sufficiently refined to detect the differences.

The present study confirms that there is a significant proportion of patients with non psychotic mental illness using health services in the community health centre and that a substantial proportion of these patients go undetected by health workers.

RECOMMENDATION

Based on the results of this study the following recommendations can be made:

1. Further training of health workers in community health centres in both detecting and appropriately managing patients with non psychotic mental illness is required. This training should emphasize the diagnosis and management of poorly educated people who make up a large part of the patients in the health centres.

2. To effectively deal with a problem as common as non psychotic mental illness. community education and involvement is crucial. Active involvement of health, religious and educational personnel at the community level should be a priority.

3. Further research is required to establish the prevalence of non psychotic mental illness in other areas in Indonesia. The SRQ suitably re-validated, would be appropriate for this purpose.

ACKNOWLEDGMENTS

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