Original Research Article

Comparative study of psychiatric patients receiving treatment in tertiary care hospital and in primary health care center

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ABSTRACT

Background: Integrating mental health services into primary care is the most viable way of closing the treatment gap and ensuring that people get the mental health care they need. Government of Karnataka initiated the Manochaitanya programme to ensure that mental health services at all primary health care centers, community health centers and taluk hospitals on every Tuesday. Its required to know the patient satisfaction in this programme.

Methods: This study was conducted over a period of two years, cross-sectionally seen 102 cases from 9 PHC's that runs psychiatric clinics every Tuesday. This population was compared with 107 from Tertiary care center. All were assessed by the Psychiatrist using ICD-10 clinically after the informed consent. After 3 follow ups they were assessed with semi structured proforma, Indian Disability Evaluation and Assessment Scale (IDEAS), Global Assessment of Functioning (GAF), Patient Satisfaction Questionnaire Short Form (PSQ-18) instruments.

Results: The Patient satisfaction was found to be higher in PHCs 83.07±8.72 compared to tertiary subjects 75.27±9.51 (p<0.05). Severe mental illness was higher 48.96% in PHCs as compared to tertiary care center common mental illness 23.36%. Subjects from tertiary care centres report higher GAF score (65%) higher among tertiary care subjects than their PHC counterparts (35%).

Conclusions: The patients receiving treatment in PHC's reported more satisfaction than those who receive treatment in tertiary care center. Higher disability scores on IDEAS in PHC's than tertiary Center due reporting of more cases of severe mental illness in PHC's. Married patients have shown higher satisfaction as compared to single/ Divorced/ Separated patients. Alcohol Dependence Syndrome was found to be more in tertiary care hospital than in PHC's.

Keywords: District Mental Health Programme, Patient satisfaction, Primary health care

INTRODUCTION

Integrating mental health services into primary care is the most viable way of closing the treatment gap and ensuring that people get the mental health care.[1,2]

Findings from the epidemiologic catchment area study, a comprehensive survey of psychiatric disorders demonstrated that it is primary care physicians who are the frontline of the mental care system.[3] Nearly 11% of Indians above 18 years are suffering from mental disorders as per the National Mental Health Survey (NMHS) 2016.[4] In 2017, 197.3 million people had mental disorders in India.[5]

Treatment gap is a useful indicator for accessibility, utilisation and quality of health care and undoubtedly, a very high treatment gap would result in increased disease

burden.[6] Currently the treatment gap for severe mental disorders (73.6%), common mental disorders (85%) and substance use disorders (91.1%) as per NMHS survey 2016. In less developed countries, treatment gap varies between 76%-85%.[7] it is different for different mental illness.[8]

Government of Karnataka has initiated the "Manochaithanya"- Empowerment of Mind, Tuesday clinics developed 2014.[9] Mental health services should be available at all Primary Health Centers, Community Health Centers, and Taluk hospitals on every Tuesday.

It was recommended to utilize the services of psychiatrist of district hospital, Department of psychiatry of Government and Private medical colleges and Private psychiatrists. Psychiatrist will visit Manochaithanya clinics on selected Tuesdays, other days it will be run by medical officers of the concerned centre. Medical officers are sensitized about mental health. They work according to the guidelines published by the KSMHA. Concerned centres will procure the essential cost-effective psychotropic medicines depending upon the requirement. Training of medical officers on management of mental health problems as per National Mental Health Programme guidelines. As per the information Tuesday clinics have been started in more than 140 talukas in the state.[9-13]

Integration of mental health to primary care is very important as it enhances access, promotes respect for human rights, affordable and cost effective. This is likely to generate good outcome in the background presented in study undertaken.

Previous experiences in primary care has proven that primary care doctors can effectively manage mental illness in PHCs.[14,15]

Patient satisfaction helps in evaluating quality of care, and an indicator of weaknesses in the service.[16] Its affected by many factors like patients demographic, diagnosis treatment, chronicity of diseases and size of the hospital, and it varies for different clinical conditions as well as in demographic groups.[17-23]

On this Background the present study was conducted with the following Hypothesis There will be no difference in patient satisfaction for treatment across tertiary care centres and primary health centres.

METHODS

It's a Case-Control study carried out for 2 years duration between 2016 - 2018 on subjects treated in 2 sites BMC&RI hospitals and 9 sites "Manochaithanya Tuesday Clinics" set up by the Government of Karnataka in PHCs on OPD basis in Bangalore rural and Chikkaballapura districts.

Details were collected after 3rd consecutive visit of all patients through a semi structured proforma that includes demographic details such as age, gender, education, marital status, area of domicile, socioeconomic status. Psychiatric diagnosis, IDEAS, PSQ-18 were the instruments applied by the consultant psychiatrists.

Ethical considerations

Approval was taken from the institutional ethics committee of BMC&RI. International clinical harmonization Good Clinical Practice (ICHGCP) were followed in this research. Written informed consent from patients were taken in their local language. Confidentiality of all the information obtained was maintained. No additional benefits were given to the participants in the study.

Instruments used

IDEAS – Indian Disability Evaluation and Assessment Scale for measuring and quantifying disability in mental disorders.[24] Information were gathered from the patients, and their family members. It has satisfactory face, content, criterion validity, and internal consistency. It has been widely used for research purposes, satisfactorily.[25]

PSQ 18 - Patient Satisfaction Questionnaire 18 - Short form is an items scale tapping information on seven dimensions of satisfaction with medical care such as general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor and accessibility and convenience.[18,26] Good internal consistency, reliability, validity was reported and has been adapted for use in primary care outpatients setting.[27]

Participants - Sample size - 102 Cases from 9 PHCS Bangalore rural (Yelhanka, Anekal, Sarjapura, Gunjur, K.R Puram, Kengeri, Gollahalli, Varthur, Hoskote) and 107 Controls from BMC&RI hospitals (Victoria and Bowring Lady Curzon hospitals) were recruited after taking consent.

Inclusion criteria

The inclusion criteria were patients with any mental illness (severe mental illnesses - Schizophrenia, severe depression with psychotic symptoms, common mental illness - depression without psychotic symptoms, anxiety disorders) and willing to give informed consent, age above 12 years, based on clinical interviews conducted by a consultant psychiatrist.

Exclusion criteria

The exclusion criteria were any degree of Intellectual disability, epilepsy, cognitive deficits and those who do not give consent.

Statistical analysis

By using SPSS following were analysed Frequencies, percentages, mean, Standard deviation, Standard error of mean with p<0.05 was considered significantly, Independent -t test and ANOVA were used.

RESULTS

Demographic variables

Both the groups were age and sex matched, male population was 65%. PHC population had people who never had formal education and hadn't gone to school (38.2%) compared to the cases visiting tertiary center (23%). Only 8% of the cases in PHC had completed degree compared to 18% in tertiary center cases (Table 1).

Table 1: Demographic profile.

Variables	Cases N (%)	Controls N (%)
Gender	M- 36 (35.29), F- 66 (64.71)	M- 40 (36.45), F- 67 (62.62)
Education		
Not gone to school	39 (38.20)	23 (21.90)
1-10std	48 (47.06)	57 (54.29)
10std and above	15 (14.70)	25 (23.81)
Age group		
14-18	3 (2.94)	3 (2.80)
19-60	83 (81.37)	88 (83.23)
60 and above	16 (15.69)	16 (14.95)
Occupation		
Unemployed /housewife	51 (50.5)	60 (57.69)
Unskilled worker	15 (14.85)	21 (20.19)
Skilled worker	10 (09.9)	14 (13.46)
Farmer	20 (19.8)	4 (3.85)
Business	4 (3.96)	5 (4.81)
Professional	1 (0.99)	0 (0)
Marital Status		
Never married	13 (12.87)	16 (15.24)
Married	79 (78.22)	82 (78.10)
Divorced / Widow/separated	9 (8.91)	7 (6.66)
Religion		
Hindu	91 (90.1)	66 (62.86)
Muslim	4 (3.96)	33 (31.43)
Christian	6 (5.94)	6 (5.71)

Proportion of cases

Cases being divided into severe mental illness, minor mental illness and alcohol use disorders. Severe Mental Illnesses was higher as observed 47% in the PHC and 22% in Tertiary care center. Common mental illnesses

were reported more 71% in Tertiary care as compared to 51% in the PHCs. Alcohol Dependence Syndrome was higher 7% in Tertiary and PHCs to 2% (Table 2).

Table 2: Distribution of patients.

Mental illness	Cases N (%)	Controls N (%)	Significance
Severe mental illness	48 (47.0)	24 (22.4)	0.001***
Common mental illness	52 (51.0)	76 (71.0)	
ADS	02 (02.0)	07 (6.6)	

*** p<0.001

Number of drugs

Participants were evaluated on being on single drug or multiple drugs. Severity of PHC population reported single drug usage (52%) whereas tertiary care centres reported multidrug usage (53%) (Table 3).

Table 3: Drug treatments.

Treatment	Cases	Controls
Single drug	51.9%	48%
Multiple drug	47%	`53%

Table 4: Patient satisfaction.

PSQ-18 questions	Case (N-102) Mean	Control (N-107) Mean	p value
General satisfaction	09.25±1.33	08.63±1.29	0.001***
Technical quality	18.52±2.40	17.18±2.63	0.0001***
Inter personal manner	9.42±1.15	8.74±1.31	0.0001***
Communication	9.56±0.95	8.92±1.09	0.0001***
Finance	8.56±2.07	8.08±1.92	0.087
Time spent with doctor	9.29±1.30	8.17±1.59	0.0001***
Accessibility/ convenience	17.92±2.61	16.07±2.85	0.0001***
Total	83.07±8.72	75.27±9.51	0.0001***

*** p<0.001,** p<0.05

Patient satisfaction

PSQ - 18 was used to assess patient satisfaction. Assessed across domains that included general satisfaction, technical quality, interpersonal manner, communication, finance, time spent with the doctor, accessibility and convenience.

Patients seen at PHC had significantly better score in all the domains of the PSQ-18 questionnaire as mentioned in the table with mean. Total score being 83.07±8.72 in

PHC population compared to 75.27±9.51 tertiary center (p<0.05) by using independent t test (Table 4).

ANOVA test being used while comparing within group analysis. As in PHC'S the PSQ scores were in decreasing patterns of ADS, Common mental illness and then Severe mental illness (Table 5) but in controls it follows decreasing order ADS, severe mental illness, common mental illness (Table 6). As in (Table 7) cases has shown higher the PSQ scores in common mental illnesses and in severe mental illness's only time spent with doctors is

significant differences with p value 0.0036 and no significant differences in ADS group seen.

Functioning and disability

Proportion of patients reaching highest level of functioning (91-100) was more in patients seen in tertiary care comaped PHC (35% versus 65%.) assessed through GAF. Disability scores were significantly higher in cases compared to controls (3.23±2.42 versus 2.38±1.94 (p<0.05) (Table 8).

Table 5: Patient satisfaction scores within the PHC's.

PSQ-18 question (Cases)	Severe mental illness	Common mental illness	ADS	p value
General satisfaction	8.77±1.67	9.67±0.73	10.00±00	0.002**
Technical quality	17.62±2.76	19.29±1.73	20.00±00	0.001***
Inter personal manner	9.17±1.28	9.63±0.99	10.00±00	0.096
Communication	9.31±1.11	9.77±0.73	10.00±00	0.043**
Finance	7.94±2.28	9.08±1.72	10.00±00	0.013**
Time spent with doctor	8.92±1.54	9.61±0.95	10.00±00	0.019**
Accessibility and convenience	16.92±2.72	18.76±2.21	20.00±00	0.001***

*** p<0.001,** p<0.05

Table 6: Patient satisfaction scores within the tertiary care center.

PSQ-18 question (Controls)	Severe mental illness	Common mental illness	ADS	Significance
General satisfaction	8.71±1.23	8.47±1.29	10.00±00	0.009**
Technical quality	17.08±2.55	16.94±2.63	20.00±00	0.012**
Inter personal manner	8.92±1.06	8.57±1.37	10.00±00	0.014**
Communication	8.88±0.99	8.83±1.14	10.00±00	0.024**
Finance	8.21±1.64	7.92±1.99	9.43±1.51	0.129
Time spent with doctor	8.08±1.59	8.02±1.57	10.00±00	0.006**
Accessibility & convenience	16.04±2.22	15.72±2.90	20.00±00	0.0001***

*** p<0.001,** p<0.05

Table 7: Patient satisfaction scores among common mental illness.

PSQ-18 question (Common mental illness)	Control	Cases	Significance
General satisfaction	8.47±1.29	9.67±0.73	0.001***
Technical quality	16.94±2.63	19.29±1.73	0.001***
Inter personal manner	8.57±1.37	9.63±0.99	0.001***
Communication	8.83±1.14	9.77±0.73	0.001***
Finance	7.92±1.99	9.08±1.72	0.001***
Time spent with doctor	8.02±1.57	9.61±0.95	0.001***
Accessibility and convenience	15.72±2.90	18.76±2.21	0.001***

*** p<0.001,** p<0.05

Table 8: Summarising.

Mental illnesses	Cases	Controls
Severe mental illness	48.96%	23.36%
PSQ-18 total	83.07±8.72 (p<0.05)	75.27±9.51
Common mental illness	52.94%	76.63%
Global score (IDEAS)	3.23±2.42	2.38±1.94 (p<0.05)
Alcohol dependence syndrome	02%	07%

- Mean age of cases 44.58±14.69 controls 44.08±14.81 (p>0.05) independent-t test
- Cases 3.23±2.42 and controls 2.38±1.94 Global score of IDEAS (p<0.05) mann whitney -u test
- Severe mental illness were 48.96% in Cases as compared to controls 23.36%.
- Minor mental illness were 76.63% in Controls as compared to cases 52.94%
- Alcohol dependence syndrome is 07% in controls as compared to 02% in cases.
- PSQ-18 total in cases 83.07±8.72 and control 75.27±9.51 independent -t test (p<0.05)
- Severe mental illness in cases have scored better total PSQ scores than common mental illness.
- Married people have shown higher TOTAL PSQ scores as compared to Single/Divorced/Separated.
- In all age groups Cases have shown higher Total PSQ score than controls.

DISCUSSION

In the study conducted by Shalini Ahuja et al, in a district of Madhya Pradesh have opined it needs continued inputs into the DMHP covering and identified nine different indicators domains such as need for treatment, utilization of care, quality of care and financial risk protection to measure a district's health system performance for mental health.[28] Even though crucial to be reported, indicators on suicide rates and attempts, daily stock-out rates of medicines and re hospitalization need a robust system in place which in this case is provided by a functional district mental health programme and research projects.

As they have found additional advantages of community-based interventions, small, clean mental hospitals could avoid long stay and promote good turnover. Mental hospitals in the vicinity of 100 km could promote easy accessibility and acceptability. When inpatient services are made available at the primary care level, the patients would obtain full advantage of the treatment, patients would seek help at an early date, Relapses could be better prevented, and treatment gap could be abridged. Thus, community interventions like DMHP play a more vital role.[29] In our study its shown like married persons has better Patinet Satisfaction scores which is in accordance with Hall et al study.[30]

In a Rosenheck R et al study has shown the strongest and most consistent predictors of satisfaction were older age and better self-reported health.[31] As in our study it has shown in cases satisfaction in all age groups as compared with controls. In a Holikatt PC et al study shows schizophrenia were least satisfied, whereas patients with major depression had highest satisfaction with services. As in our study patients from cases were in decreasing patterns of ADS, common mental illness and then Severe mental illness (Table 5) but in controls it follows decreasing order ADS, severe mental illness, common mental illness (Table 6). There was a difference in satisfaction levels among the demographic and clinical groups regarding various components of satisfaction. Patient satisfaction in psychiatry is a complex issue with various influencing factors. It is essential to study this further, as it has potential to improve clinical care.

Effective training programmes are required to develop mental health skills of primary health care staff as per World Health Organization.[32] Lack of Proper training programmes for primary care physicians in India are criticized as 'never properly trained.[33]

Studies from India have reported that primary health care professionals are often inadequately trained, reluctant or unable to detect, diagnose or manage common mental disorders.[34-37]

Continuous Mental health education for primary care physicians is more likely to improve the quality of mental health care.[38] Development of care for mental illness at Primary care centres is the way out for reaching the needy population. Implement on community mental health through established primary care centers. Providing community-based services for greater numbers of people with schizophrenia in low and middle income countries is an urgent public health priority.[39] Primary aim is making mental health care accessible to all by setting up psychiatric services in peripheral areas, training primary health care personnel and involving the community in promotion of mental health care. Decentralisation of psychiatric services and integration with general health care is the felt need of the country and is required not only in rural areas but semi-urban areas and suburbs of cities.[40]

Considering the small sample size, results of the study cannot be generalised. Due to difference in psychosocial situations comparison its difficult. Study population are taken from the health centers within 100kms radius of Bangalore city, and hence generalising the results to diverse population is limited.

CONCLUSION

The Major conclusion from this study is that there is higher global disability scores, IDEAS in cases than controls due to more of severe mental illness in PHC's. PHC treatment team is being able to cater more individuals with severe mental illness compared to tertiary care. However, more the number of patients with severe illness would have contributed to higher scores in IDEAS. Tertiary centres cater more for minor mental illness and thus lesser disability. ADS is more in tertiary care hospital than PHC's possibly due to availability of services for general medical condition, medical complications of alcohol and also owing to psychiatric references from the medical team. Possibility of more holistic treatment being available at tertiary hospital than in PHC cannot be undermined. The Global Assessment of

Functioning scores are higher in controls than cases due to more of minor mental illness in controls.

The Patient Satisfaction Questionnaire -18 scores higher in cases than controls. The patients receiving treatment is more satisfactory in PHC's than compared to tertiary care centre. Married patients showed higher Psq score than single/divorced/separated patients. The probable explanation could be due to ease of accessibility, reduction in cost spent for travel and logistics, better interpersonal relationships due to involvement of other health staff, cost reduction, availability of free medications, availability of treatment nearly at doorstep.

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