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Original research article

Comparative Study of the Effectiveness of District Mental Health Programme

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Abstract

Background: Mental, neurological, and substance use (MNS) disorders are major contributors to morbidity and premature mortality. 14% of the global burden of disease can be attributed to MNS disorders.It is estimated that 6-7 % of population suffers from mental disorders. District mental health programs (DMHP) are run in many districts of India and an effective strategy to provide mental health care to rural populations.

Objectives: To study the effectiveness of District Mental Health Programme and to assess the subjectsatisfaction.

Methods: The study was carried out at DMHP clinic in GMC, Bettiah. psychiatry department. 100 cases and 100 controls were selected, after meeting the inclusion and exclusion criteria. Diagnosis made as ICD-10 by treating psychiatrists. Patient satisfaction questionnaire (PSQ - 18) andglobal assessment of functioning scale were administered to both groups.

Conclusion: More female (64.0%) and people from LSES (67.0%) accessed DMHP clinic than medical college psychiatry department (39.0%). None of the patients were aware of DMHP programme.

Keywords: Community psychiatry; DMHP; PSQ-18.

Introduction

Mental, neurological, and substance use (MNS) disorders are prevalent in all regions of the world and are major contributors to morbidity and premature mortality. 14% of the global burden of disease, measured in disability-adjusted life years (DALYs), can be attributed to MNS disorders. The stigma and violations of human rights directed towards people with these disorders compounds the problem. The resources that have been provided to tackle the huge burden of MNS disorders are insufficient, inequitably distributed, and inefficiently used, which leads to a treatment gap of more than 75% in many countries with low and lower middle incomes[1].Mental, neurological, and substance use disorders are linked in a complex way with many other health conditions. These disorders are often co morbid with, or act as risk factors for, non communicable diseases (e.g. Cardiovascular disease and cancer), communicable diseases (e.g. HIV/AIDS and tuberculosis), sexual and reproductive health of mothers (e.g.

Increased gynaecological morbidity, sexual violence, maternal depression, and childhood development), and injuries (e.g. Violence and road traffic accidents, Despite the prevalence and burden of MNS disorders, a large proportion of people with such problems do not receive treatment and care. A large multi country survey supported by WHO showed that 35–50% of serious cases in developed countries and 76–85% in less-developed countries had received no treatment in the previous 12 months[1]. It is estimated that 6-7 % of population suffers from mental disorders. The World Bank report (1993) revealed that the Disability Adjusted Life Year (DALY) loss due to neuro-psychiatric disorder is much higher than diarrhoea, malaria, worm infestations and tuberculosis if taken individually[2]. One in four families is likely to have at least one member with a behavioural or mental disorder (WHO 2001). These families not only provide physical and emotional support, but also bear the negative impact of stigma and discrimination. Most of them (>90%) remain un-treated. Poor awareness about symptoms of mental illness, myths & stigma related to it, lack of knowledge on the treatment availability & potential, benefits of seeking treatment are important causes for the high treatment gap[2].About 2–3 % of the population, suffer from seriously, incapacitating mental disorders or epilepsy. Most of these patients live in rural areas remote from any modern mental health facilities. A large number of adult patients (10.4 – 53%) coming to the general OPD are diagnosed mentally ill. However, these patients are usually missed because either medical officer or general practitioner at the primary health care unit does not ask detailed mental health history. Due to the under-diagnosis of these patients, unnecessary investigations and treatments are offered which heavily cost to the health providers[3]. The needs of patients and families far outstrip the availability and accessibility of services for those with mental disorders. India‘s scarce mental health resources, such as mental health specialists, are largelyconcentrated in some states (mainly in the south) and in urban areas and a large proportion are solely in the private sector. Over half of all inpatient beds are located in 40 odd mental hospitals, most of which were built during the colonial years. It is not surprising, then, that the _treatment gap‘ for mental disorders is largeall over the country, but especially so in rural areas, northern states and amongst the socially disadvantaged[13].Before 1996 the situation in many Indian districts was very bleak, with virtually no formal mental care Service available there was no treatment for common mental disorders and mental health promotional activities were unheard-of. Families would hide relatives with severe Mental illness for as long as possible. When the burden became too great for the families to bear , then the mentally ill person Would often be abandoned and left in the care of the religious order[4]. India under the national mental health programme with the primary aim of 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.[5] District mental health programs (DMHP) are operational in many districts of India, and government is planning to extend its coverage, there have been doubts about this is an effective strategy to provide mental health care to rural populations. Some have pointed out that data based publications are lacking about this national flagship programme[6]. In the seventies a number of epidemiological surveys were carried out in this country to assess the morbidity due to mental disorders (Dubey, 1970; Sethi et al., 1972; Verghese et al., 1973; Kapur, 1973; Nandi et al., 1975).The findings of these studies have clearly established that prevalence and distribution of various formsof mental disorders are as much as in western countries[7.

Objectives

To study the effectiveness of District Mental Health Programme and to assess the subject satisfaction.

Review of Literature

The Bhore committee report 1n 1947 said, even if the proportion of patients be taken as 2 per thousand population in India, hospital accommodation should be available for 8,00,000 mental patients as against the existing provision for a little over 10,000 beds for the country as whole‖[8]. By the 1970s, community surveys of mental disorders carried out in different parts of the country had shownthat all types of mental disorders were widely prevalent in India. Comprehensive and authoritative reviews of the situation of psychiatric disorders in developing countries including India by Neki and Carstairs highlighted the gross neglect of mental disorders in developing countries due to a variety of reasons which included pervasive stigma, widespread misconceptions, grossly inadequate budgets for health care including mental health and acute shortage of trained mental health personnel. It was pointed out that in developing countries; basic mental health care should be decentralized and integrated with the existing system of generalhealth services[9]. The organization of mental health services in developing countries" – a set of recommendations by an expert committee of the World Health Organization:The strategy of integrating mental health into primary care services was strongly endorsed by an Expert Committee set up by the World Health Organization to make recommendations about ways and means of delivering mental health services in developing countries which had acute shortage of trained mental health professionals. The programme envisaged a decentralised community based approach to the problem including (I) trainingof the mental health team at the identified nodal institutes within the State;(ii) increasing awareness about mental health problems and effective health seeking patterns; (iii) adequate provision of services to promote early detection and treatment of mental illness in the community itself with both OPD and indoor treatment and appropriate follow up measures and (iv) collecting data and experience for future planning, research and improving service provision[10].District mental health program (DMHP) is an approach to decentralize mental health-care in the community using the existing public health infrastructure and additional resources. This model has been pilot tested in Bellary district of Karnataka State and found to be useful in addressing the basic mental health needs of the population[11]. In most districts where the program is in operation, a team of the DMHP, consisting of a Psychiatrist, Psychologist, social worker, and nurse visits designated peripheral health centers. Medicines and services areprovided free of cost to the patients attending the clinic. Services are geared to provide general adult psychiatric care The District mental health programme a component of national mental health programme of government of India has been operational since 1995-96. At present it covers 124 districts, and it is expected to cover many more districts of India. Other components of the program include manpower development schemes like establishment of centres of excellence, providing funds for development of infrastructure existing state mental hospitals[12] Generally it is reported that case finding using community health workers and imparting basic skills to handle mentally ill persons have been successful. A study by S.C.TIWARI et al. indicated very high awareness about mental illness and their treatment contrary to the belief that there is lack of awareness in the community about these issues. The community was also aware of various places of treatment and about its possible efficacy. Majority of the subjectsutilized available treatment facilities indicating that rural community does have a positive health seeking behaviour. The community was found to be generally dissatisfied with the treatment facilities available for mentally sick, the reason being, perhaps, non availability of services in or near to the community long distance to reach available services, cost of treatment, fear of going to unknown places [7].

With this background present study is undertaken.

Material and methods

The Comparitive study was carried out at DMHP clinic in Government medical college and Hospital, Bettiah, Bihar. Study duration of One year. psychiatry department. 100 cases and 100 controls were selected, after meeting the inclusion and exclusion criteria. Diagnosis made as ICD-10 by treating psychiatrists. Patient satisfaction questionnaire (PSQ -18) andglobal assessment of functioning scale were administered to both groups.

Controls were selected from Victoria hospital psychiatry department OPD. Patients attending the OPD with mental illness were selected after confirming their follow up and diagnosis. Information such as monthly income, personal information and demographic information of the families, substance abuse, and the patients‘ perception of the problem were collected. Emphasis was also given on the perception of the problem/illness among the patients' family members/caregivers, information about the awareness of DMHP, details of any previous DMHP interventions, and the patients and family members perception of services andmental health and illnesses.

From the review patients attending the clinic every case was chosen for inclusion, excluding epilepsy,mental retardation and newly registered cases. Diagnosis was made by the treating psychiatrist based on ICD– 10. Sample included 100 consecutive cases seen in district mental health programme and compared to 100 consecutive cases from general hospital psychiatric unit of medical college.

CASES: Inclusion criteria:
Patients who have visited DMHP clinic more than once.
Patients with mental illness.
Patients who have consented.

Exclusion criteria:
Patients who have refused to consent.
Patients with major medical illness, epilepsy, mental retardation and aggression.
Patients who have visited once.
Patients who do not understand Kannada language.

CONTROLS: Inclusion criteria:
Patients who have visited DMHP clinic more than once.
Patients with mental illness.
Patients who have consented.

Exclusion criteria:
Patients who have refused to consent.
Patients with major medical illness, epilepsy, mental retardation and aggression.
Patients who have visited once.

The Global Assessment of Functioning (GAF) is a quick and simple measure of Overall psychological disturbance. GAF is a reliable measure of disturbance of psychological functioning in long-term mentally ill patients. TheGAF can be administered as both an overall scale and as two separate measures assessing symptoms and disability. Can be readily used by multidisciplinary raters, without the need for extensive training.

Results
Gender: Overall out of 200 patients from both the institutions 48.5% (n=97) were males and

51.5% (n=103)were females.
Residence**:** Out of 200 patients from both the institutions 50.0% (n=100) were from urban area and 50.0% (n=100) were from rural area.
Previous intervention**:** Out of 200 patients from both the institutions all patients i.e., 100.0% (n=200) had previous psychiatric consultation.
DMHP awareness**:** Out of 200 patients none of the patients from both the institution were aware of district mental health programme 100.0% (n=200) .
Diagnosis**:** Out of 200 patients 35.0%(n=70) were diagnosed with psychotic disorder, 18.0%(n=37) had depressive disorder, 15.5%(n=31) had the diagnosis of alcohol dependence syndrome, 10.5%(n=21) had bipolar disorder, 11.0%(n=22) had anxiety disorder, 9.5%(n=19) had somatoform disorder.
Global assessment of functioning**:** Out of 200 patients 29.5%(n=59) had the score of 81-90%, 28.5%(n=57) had 71-80% score, 19.0%(n=38) had 61-70% score, 11.5%(n=23) had 51-60% score, 8.0%(n=16) had 41-50% score, 1.0%(n=2) had 31-40% score, 2.5%(n=5) had 91-100% score.
Verbal opinion about mental care**:** Out of 200 patients 48.5% (n=97) opined _okay‘, 33.5%(n=67) opined as _good‘, 18.0%(n=36) opined as _very good‘. depicting the gender distribution at both the institutions showing more number of female.
Overall out of 200 patients from both the institutions 48.5% (n=97) were males and 51.5%(n=103) werefemales. Out of 200 patients 35.0%(n=70) were diagnosed withpsychotic disorder, 18.0%(n=37) had depressive disorder, 15.5%(n=31) had the diagnosis of alcohol dependence syndrome, 10.5%(n=21) had bipolar disorder, 11.0%(n=22) had anxiety disorder, 9.5%(n=19) had somatoform disorder. awareness regarding DMHP at both the institution. Out of 200 patients none of thepatients from both the institution were aware of district mental health programme 100.0% (n=200). global assessment of functioning findings from both the institution. Out of 200 patients 29.5%(n=59) had the score of 81-90%, 28.5%(n=57) had 71-80% score, 19.0%(n=38) had 61-70% score, 11.5%(n=23) had 51-60% score, 8.0%(n=16) had 41-50% score, 1.0%(n=2) had 31-40% score, 2.5%(n=5) had 91-100% score. Among 200 selected patients, all 200 patients completed the questionnaire (response rate = 100%). The mean ± SD age of the responders was 38.5±10.5 years, at Victoria hospital and 42.5±11.2 years. Of the 100 patients selected in the Victoria hospital 61%(n=61) were males and 39%(n=39) were females. And of the 100 patients selected in district mental health programme clinic 36%(n=36) were males and 64%(n=64) were females, which statistically significant (p=<0.001). Locality wise, 59%(n=59) of the patients from Victoria hospital were from urban background and 41%(n=41) were from rural background. And41%(n=41) of the patients from district mental health programme clinic were from urban background and 59%(n=59) were from rural background.

Previous intervention: All 100 patients both at Victoria hospital psychiatry OPD and DMHP clinic had previously consulted psychiatric care in respective institution.DMHP awareness**:** Out of 100 patients each at Victoria hospital and DMHP clinic none of the patients wereaware of programme DMHP.Income**:** Out of 100 patients most of the patients belonged to upper lower class, that is 51%(n=51) and lowermiddle class that is 36%(n=36) at Victoria hospital. Most of the patients at district mental health programme belonged to upper lower class that is,67%(n=67).Diagnosis: Out of total 100 patients at Victoria hospital 28%(n=28) were diagnosed with ADS,29%(N=29) were diagnosed with psychotic disorder, 15%(n=15) had depressive disorder, 14%(n=14) had bipolar disorder,12%(n=12) had anxiety disorder, 2%(n=2) had somatoform disorder.Out of 100 patients from district mental health programme clinic 41%(n=41) were diagnosed with psychotic disorder, 22%(n=22) had depressive disorder,17%(n=17) had somatoform disorder,9%(n=9) had anxiety disorder,7%(n=7) had

bipolar disorder and 3%(n=3) had ADS.Global assessment of functioning: most of the patients at both Victoria hospital psychiatry OPD and district mental health programme clinic had good functioning (p=0.881).
Verbal opinion about mental care: 30%(n=30) patients at Victoria hospital verbally opined about mental care given as _very good‘, 36%(n=36) as _good‘, 34%(n=34) patients opined as they are _okay‘ with the care.6%(n=6) at district mental health programme clinic verbally opined about mental care given as _very good‘, 31%(n=31) patients opined as _good‘ and 63%(n=63) opined as _okay‘ with the mental care they received.

GENDER DISTRIBUTION

Table 1: showing mean age distribution at Victoria hospital and DMHP clinic

	Victoria hospital	**DMHP clinic**
MEAN AGE(Y)	**38.5 ±10.6**	**42.4 ±11.2**

Table 2: showing gender distribution at Victoria hospital and DMHP clinic.

SEX	**Victoria hospital**	**DMHP clinic**
MALE n(%)	**61(61.0%)**	**36(36.0%)**
FEMALE n(%)	**39(39.0%)**	**64(64.0%)**

the distribution of patients in terms of residence of Victoria hospital and DMHP clinic patients. Locality wise, 59%(n=59) of the patients from Victoria hospital were from urban background and 41%(n=41) were from rural background. And 41%(n=41) of the patients from district mental health programme clinic were from urban background and 59%(n=59) were from rural background.showing the scores of PSQ-18 subscales at Victoria hospital were for general satisfaction 4.3, technical quality 4.3,interpersonal manner 4.5, communication 4.5, financial aspects 4.1, time spent with doctor 4.4, accessibility and convenience 4.1 on a scale of 5, indicating patients were satisfied. The overall satisfaction was 4.3.Scores of PSQ-18 subscales at district mental health programme clinic were for general satisfaction 3.8, technical quality 3.6, interpersonal manner 4.1, communication 4.0, financial aspects 3.4, time spent with doctor 3.6, accessibility and convenience 2.4.The overall satisfaction was 3.5.

Discussion

The formation of overall satisfaction in an individual is related to psychological, cultural and environmentalfactors. We believe that the interaction of factors constituting overall satisfaction is different among cultures;therefore overall satisfaction could not be precisely estimated by simply measuring the statistical average of certain aspects. In the current study, patient satisfaction varied in different dimensions. At Victoria hospital no difference found among the different subscales of PSQ-18. While at district mental health programme clinic patient satisfaction varied in different dimensions with interpersonal manner and communication showing strongest association and accessibility and convenience showing weak association. Client satisfaction might be influenced by social situation and is related with patient expectancy of services. In the current study, patients reported a relatively acceptable level of overall satisfaction at Victoria hospital and at district mental health programme clinic, level of

satisfaction varied across different dimensions of PSQ-18 subscales. As we know from our observation that, service is available once a month on every 4thTuesday, starting at 9 a.m., Consequently, there is a lot of overcrowding on Tuesdays. This affects the quality of treatment, as the doctor is not able to allocate adequate time to each and every patient. These findings are similar to the findings in a study by Ananth kumar on District Mental Health Programme in India: A case study[7]. The study showed that majority of patients attending the DMHP clinics suffered from major psychiatric disorders. Based on the above findings, we can confidently say that the DMHP has been a successfulstrategy for providing mental health care to the rural population. The program aims to provide continuity of care for those discharged from mental hospitals or medical colleges which provide acute care and in patient. But after being discharged, non-availability of adequate number of psychiatrists (and majority of the few available offering services in urban areas only) makes follow up care extremely difficult. Majority of patients on treatment were females (64.0%) which is in contrast to a study on DMHP in Kannur district of north Kerala in 2013, which showed majority of patients were males (58.3%). A report on DMHP in Chandigarh also showed majority of male patients (63.0%). Our study showed negligible number of substance use disorders at DMHP clinic (3.0%),a finding similar toa study by Harish M Tharayil and contrasting to the findings of Wariach et al,2003 where majority of male patients had substance use disorders. Majority from both genders were suffering from only major psychiatricdisorders. Satisfaction with service offered in the DMHP clinics was in acceptable range with majority (63.0%) of the patients reporting scores in 'okay' and 'good'(31%) ranges. This shows that the program has a high degree of acceptance among the intended target group of patients. Compared to district mental health programme clinic, Victoria hospital psychiatric OPD saw more numberof alcohol dependence syndrome (28.0%) and psychotic disorders (29.0%).where as district mental health programme saw more of psychotic disorders (41.0%) and depressive disorders (22.0%). Majority of patients at DMHP clinic were from lower class (13.0%) and upper lower class (67.0%) compared to Victoria hospital psychiatry OPD where (4.0%) were from lower class and (51.0%) were from upper lower class indicating more lower class group accessing DMHP clinic. Overall Patient satisfaction questionnaire-18 scores were more (4.3) implying patients were ‗satisfied' at Victoria hospital psychiatric OPD compared to district mental health programme (3.5) implying ‗partially satisfied'. This may be due to the fact that more general perception that being a tertiary care center Victoria hospital has all kinds of medical facilities and manpower and round the clock availability of services wherein district mental health programme clinic psychiatric services were available on selected days. None of the patients from both the institution were aware about District Mental Health Programme may be due to poor IEC activities.

Conclusion

Rural DMHP clinics are more friendly for rural women and people from low socio economic status.Patients expressed more overall satisfaction from medical college & hospital. None of the patients from both the institution were aware of District Mental Health Programme.

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