

## Service Utilisation Pattern in Extension Services of NIMHANS

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G Gururaj

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*- Department of Epidemiology, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India*

*G N Narayana Reddy, - Director, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India*

*D K Subbakrishna, - Department of Biostatistics, National Institute of Mental Health & Neuro Sciences, Bangalore 560 029, India*

### *Abstract*

With a view to develop a model for providing services to mental and neurologically ill patients in rural areas, neuro psychiatric extension services were started in 5 centres in Karnataka. An analysis of 667 patients profiles from these centres for the year 1986 revealed that children and adolescents were the major beneficiaries. Patients were attending these centres from within a radius of 20 km in high numbers. Duration of illness was varying, highest being less than 12 months. Epilepsy, neurotic disorders, mental retardation and psychosis were the major diagnostic categories. About 8.9% of cases were referred by local general practitioners to the centre and about 18% of cases were referred to NIMHANS for detailed procedures. Continuity of care and long term follow-up are highly essential for improving health status of patients attending these centres.

Key words -

**Extension services,  
Satellite clinics,  
Utilisation pattern**

Mental health services form an integral part of total health services. The National Mental Health Programme clearly highlights the various approaches to provide these services [1]. Due to paucity of manpower in the field of mental health and neurosciences, alternative approaches have to be developed to deliver services for the vast majority of rural population in this country.

NIMHANS has already developed a model by establishing extension services in five centres of Karnataka [2], [3], [4], [5], [6], [7], [8], [9], [10]. Through the active participation of governmental and non-governmental agencies, the programme is in operation from 1981 onwards and services are rendered by a team of multi disciplinary specialists from the Institute on fixed days of every month.

The present study aims to know the utilisation pattern of services through a restrospective case records analysis.

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## Objectives

The study objectives are

- (i) To know the demographic and socio-economic profile of patients
- (ii) To define the catchment area of extension clinics
- (iii) To know the duration of illness at the time of first contact with the centre
- (iv) To study the morbidity pattern and
- (v) To delineate the referral pattern as well as the number of contacts made by patients.

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## Materials and Methods

The year 1986 was chosen for the purpose and only cases registered during this period were taken up for study purposes. After excluding all the general cases, only Neuro-psychiatric cases were taken up for the study. A total of 667 cases based on systematic sampling procedure (every 5th record) were selected, such that 20% case records were identified from each centre. Details are furnished in Table 1.

*Table 1 - Case record selection in different centres 1986*

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KKP-Kanakapura  
MDD-Maddur  
MDG-Madhugiri  
GNJ-Gunjur  
GBD-Gouribidanur

The information available in case records was entered into a precoded proforma.

The distance travelled by patients was calculated by taking the address of patients and later getting it confirmed with the help of local agencies.

The duration of illness at the time of first contact was also noted from case records. The morbidity pattern was tabled according to ICD-9 classificatory procedures.

The number of contacts made by each patient was also recorded.

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## Results

A total of 667 cases from five centres were studied for the year 1986. The study population had an almost equal sex distribution. A significant amount of 48.78% of cases were constituted by the age group of less than 20 years. All the cases were from rural areas except a very small percentage from centres per se. About 57.71% of cases were illiterates and with primary school education. The occupational categories were mainly agriculturists, students and housewives. Hindus comprised about 92.05% in the study population. Married people were represented to the extent of 44.52%.

About the delineation of catchment areas in different centres as depicted in table 2, 78.50% were

visiting extension clinics from within a radius of less than 20 km. A total of 95.63% of patients attending the centres within a distance of 40 km.

*Table 2 - Distance travelled by patients to reach centres*

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*Table 3 - Duration of illness at the time of contact*

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Table 3 presents the duration of illness at the time of first contact. It was less than 6 months in 38.68% of cases. The duration of illness in about 17.41% of patients was more than 36 months before any contact was made with the centre.

Epilepsy constituted the highest number of cases observed in the clinics to the tune of 42.27%. Neurotic and personality disorders amounted to 23.79% of cases. Psychosis, mental retardation and other disorders of central nervous system were noticed in 8.48%, 7.72% and 17.73% of cases respectively as shown in table 4.

*Table 4 - Morbidity Pattern*

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The referral pattern both to the centre and from the centre is brought out in table 5. The local general practitioners had referred only about 8.9% of patients seen by them. About 18.84% of patients were referred by hospitals, which includes NIMHANS referrals for follow-up in local areas. Rest of the cases had attended the Clinics on their own. It was observed that from the centres about 18.39% of cases were referred to NIMHANS for detailed procedures and investigations.

*Table 5 - Referral pattern to the extension clinics*

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The number of contacts made by patients to obtain services from the centre merits detailed investigation. About 55.77% of cases had made only one contact and could not attend later. A small percentage of patients continued to obtain services from centres on a long term follow-up basis. The study also revealed that 32.38% of beneficiaries from the centre had received prior treatment to their illness from different sources.

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## **Discussion**

For a country with a population of around 800 million, out of which, 37.5% live below poverty line, only 36% being literates and 77% are from rural areas [11], the task of providing mental health services for the needy population is an extremely difficult one for planners and administrators. Alternative approaches needs to be developed for this gigantic task. The neuro psychiatric extension services have already been proven as one of the alternative methods in the context.

The age distribution of cases observed in the present study reveals that about 48.78% of cases were in

the age group of less than 20 years, while, the general population figures in the age group of 0-14 years is 39-6% [11]. This differing pattern about the age distribution could possibly be due to high numbers of childhood epilepsy and mental retardation observed in this age group. Gourie-Devi et al, [9] in the Neuro Epidemiological survey at Gourie-bidanur (one of the extension centres) also observed higher number of cases in this age group [10]. The increasing awareness towards mental and neurological disorders and also the concern of parents for this age group might have also contributed for this observation. It was also observed that illiterates and Hindus were seen in greater numbers. However, to draw specific conclusions, it would be necessary to investigate this aspect through a prospective study.

One of the objectives of establishing extension services in the five centres was the lack of services in these areas and also the easy approachability for neighbouring villages. The study revealed that 78.5% of cases had come from within a distance of 20 km, which supports the objective and also the popularity of these centres over a period of time.

Early detection of illness for effective management is very vital. The finding that 38.68% of cases had a duration of less than 6 months reflects that, community is aware of the availability of services to moderate extent. On the other hand, about 17.41% of cases had a duration of more than 36 months before contacting the centres. It was also noticed that about 72.86% were self-referred and about 32.38% had received some type of help through different agencies.

The observed morbidity pattern reveals that epilepsy, neurotic disorders, mental retardation, psychosis and other disorders of central nervous system forms the major diagnostic categories. The earlier study on the same model [3] had revealed that psychiatric illness, mental retardation and epilepsy was observed to the extent of 22.7%, 5.7% and 33.2% respectively. The present study has observed higher figures in all the groups which could be done due to increasing attendance of neuro psychiatric cases with a corresponding decline in general cases. This also reflects on the increasing awareness in the community as these extension services established to provide services for mental and neurologically ill patients in the rural areas.

The noticeable finding that, epilepsy and neurological disorders predominated the morbidity pattern might be due to the presentation and the dramatic visibility of the illness. The neuroepidemiological survey at Gouribidanur [10] also revealed that epilepsy was the most common disorder in the morbidity pattern to the extent of 558/1,00,000 population in a rural areas, thus amounting to 43.16% of total cases (with febrile convulsions). The prevailing stigma which is associated with psychosis and other disorders might have contributed for the limited attendance from this category. As clinic based data are not truly representative of the prevailing situation in the community, future studies could analyse this aspect in greater depth in different centres. Early identification of these disorders and treatment would help in the management of cases within the community, thereby reducing the load on major hospitals. Involving the local general practitioners has been another objective of this model approach. The study shows that only a limited number of patients were referred to the patients were referred to the centres by local general practitioners. Participation of local health professionals and a simple referral system would really benefit the beneficiaries for follow-up activities. The earlier study in one centre [7] has already revealed that their participation would be more advantageous for this programme. Neuro psychiatric cases required detailed workups, investigations, admissions and many other aspects has to be referred to NIMHANS from these centres. It was observed in the present study that about 18.59% referrals were to NIMHANS which is higher when compared with the earlier observation of only 11%

[3]. This might be because of increasing neuro psychiatric case attendance over a period of time. A major factor which needs attention at this juncture, would be, to concentrate on the followup activities. The present study revealed that almost 55.77% of cases made only one contact with the centre. This phenomenon of dropouts has been observed in different situations using different models. Wig et al [12], and Murthy et al [13], noticed dropouts rates after the first contact, to the extent of 27.1% and 32.08% respectively which are lower than the findings of the present study. Parthasarathy et al [14], observed drop out rates among epileptics to the tune of 61% in their study at Sakalawara. A combination of various social, economic, educational, cultural and operational factors might have accounted for high drop out rates in the present study which merits indepth exploration. Along with the professionals extending their service to rural areas, a combination of increased awareness in the community, participation by local health professionals, involvement of non-governmental agencies operating in respective areas and community participation would definitely contribute for the success of this approach in different parts of the country.

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## Summary and Conclusion

The neuro-Psychiatric extension services of NIMHANS was evaluated through a retrospective case records analysis of 667 cases. Children and adolescents constituted a high number in the study population. A distance of 20 km from the centre covered about 78.50% of cases to the centre. A history of less than 6 months duration was noticed in 38.68% of cases and about 17.41% had a duration of more than 36 months. Epilepsy, neurotic disorders, mental retardation and psychosis were the major categories. An area for total strengthening is the followup rate of patients. A detailed prospective evaluatory study on this model would contribute greatly for improving the services in these areas.

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