

DEVELOPMENT AND EVALUATION OF TRAINING PROGRAMMES FOR PRIMARY MENTAL HEALTH CARE *

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Introduction

Various prevalence surveys carried out in India show that one to two percent of the Indian population at any given time suffer from psychiatric illness requiring urgent attention and treatment (Dube 1970, Elnager et al 1971, Sethi et al 1972, Verghese 1973, Nandi 1975, Carstairs and Kapur 1976, Murthy 1978). Another 4 to 5 % suffer from psychopathology which though less dramatic is equally distressing and incapacitating (Kapur 1979). As against this there are 2.41 mental health professionals (inclusive of psychiatrists, psychiatric nurse, clinical psychologist and psychiatric social workers) per million population. In other words for every five thousand seriously ill adult psychiatric patients there is only one mental health professional of any description. It is well documented that availability of trained manpower to cope with the mental health problems in community of developing countries is very small (WHO 1975, Neki 1973).

Under such circumstances how to render psychiatric services to the large population is a question equally valid for India and most developing countries. Integration of mental health in general health services and utilisation of existing resources for Primary Mental Health Care seems to be an answer to this problem.

Murthy and Wig (1977) while discussing

the place of mental health in public health services in India, have stressed that in view of limited trained mental health personnel, facilities and funds, the urgent need is to incorporate it with general health services and other welfare programmes. Harding et al (1980) described mental disorders in primary health care in developing countries and emphasised a need to include mental health care in the primary health care. In the last five years efforts have been made to find out alternative methods of mental health delivery in India and other developing countries (Climent et al, 1981; Wig et al, 1980).

In India research has been carried out to develop inexpensive methods of case detection (Kapur and Issac, 1978; Issac and Kapur, 1980) and mental health delivery through rural primary care (Issac et al, 1980) at National Institute of Mental Health and Neurosciences (NIMHANS) Bangalore. Wig et al from PGI Chandigarh have developed a model for rural psychiatric services at Raipur Rani (Wig et al, 1980 a).

Short and long training programmes have been conducted and evaluated for psychiatric training of general practitioners (Sham Sunder et al 1978, 1979; Gautam, 1979). Training programmes of various durations, i.e. 4 days course (Wig et al 1981); 1 ½ days course, (Kalyan Sundaram 1979); two days course (Kapur et al 1980); fifteen

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weekly sessions of two hours each, (Issac et al 1980); and two years once a week sessions (Sham Sunder et al 1979) have been reported for training of PHC doctors and MPW's.

Having gone into the details of these training programmes, and having personally experienced proceedings of four days short course at PGIMER Chandigarh and a long course of 12 sessions at NIMHANS Bangalore, the investigator wanted to investigate what is the optimum duration for which training should be imparted to the PHC personnel, how much input is required whether it is effective in representative primary health centres of the country where minimum facilities are available and how much support and supervision is required for monitoring of services. To find out answer to these practical issues this project was taken up with the financial assistance of Indian Council of Medical Research at Psychiatric Centre, S M S Medical College Jaipur.

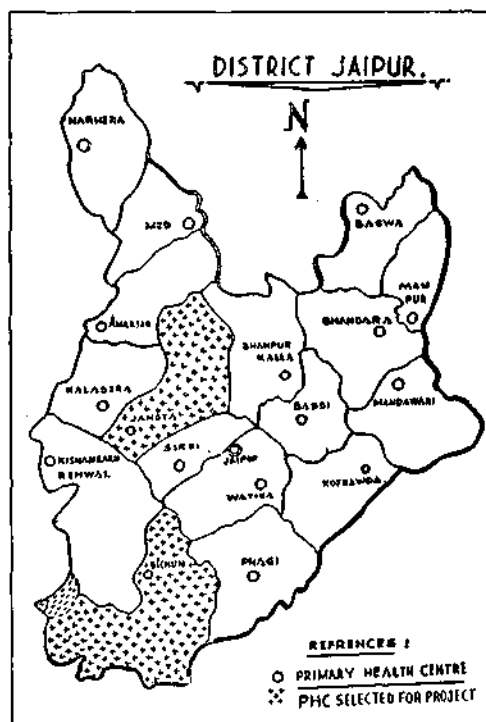
Aims of the Study

This study was conducted to find out

- (1) What is the optimum duration for which training in mental health should be imparted to Primary Health Care personnel?
- (2) How much input is required in terms of Course content?
- (3) Whether support and supervision is required after the training is imparted, for monitoring services, if yes, How much?
- (4) Whether such Training Programmes are effective in delivery of mental health services?

Material and Methods

Selection of Two Representatives PHCs



In order to have representative primary health centres it was decided to select two primary health centres under Control of Director Medical and Health Services Rajasthan situated in Jaipur district about 50 to 60 kilometers away from the city, geographically distant from each other, with no extra input from any institution i.e. should not have been adopted by a medical college or other social agencies, no other research cum services programme should be going on in these PHCs. In other words two absolutely raw primary health centres were selected. These primary health centres (JA-HOTA and BICHUN) were comparable in terms of electrification, roads to PHC, its dispensaries and sub-centres, building facilities & staff pattern. A formal permission was obtained from District Health Authorities to conduct the study and it was assured that during this period of one year no health staff be transferred outside PHC.

Collection of Baseline Statistics

The doctors and MPWs of both PHCs were contacted in their monthly meeting and administrative order was communicated to them; they were asked to collect statistics of patients suffering from mental disorders in next two months and bring it along with when training would be organised.

The Training Programmes

It was decided to conduct two training programmes - one short course of 4 days (6 sessions) and another long course spread over six weeks (12 sessions).

A pre training assessment of the doctors and MPWs was done by using the tools like HSI, KAQ, TAQ, DAQ and AMS (as discussed in details in tools and materials section). The training programmes organised for trainees of two PHC were different in duration and the elaboration of priority mental disorders. The training programme for trainees of Jahota PHC included a short compact course of four days including six sessions and pre and post training evaluation. The training programme for this PHC was organised at SMS Medical College Jaipur. Medium of training of doctors was English and while medium of training of MPWs was Hindi. The training sessions were of two and a half to three hours duration each. The training sessions for MPWs and doctors were conducted simultaneously. Four trainers who were trained in training of primary health care personnel in a three weeks WHO workshop at NIMHANS Bangalore, participated in the training programme. All these trainers were acquainted with the aims and objectives of this research plan and restricted themselves to the specified information given in short and long training manuals. The same trainers participated in training of both the PHC's personnel. During the pre and post training

assessment two research officers, employed in the project, and four trainers participated. All the assessors were well oriented to use the tools of enquiry by discussion in a prior session.

The training programme for PHC Bichun was organised at Dudu which is a central place of the PHC geographically. The training programme for this PHC was spread over six weeks (One day per week) including total 12 sessions. The duration of these sessions was from two and half hours to three hours each. The difference in the course contents was that in this PHC the topics have been covered at length. Their course content also included case demonstration through the patients brought by the trainees themselves from these areas.

After imparting theoretical knowledge in each session they were asked to bring the psychiatric cases inside the lecture hall. The patients were examined and how to arrive at the diagnosis was discussed. By doing so some patients who were wrongly diagnosed by the health staff were given correct diagnosis and management of the patients was discussed. Therefore, contrary to the short course, where case demonstration was carried out in a mental hospital set up, here the workers brought the patients direct from the community and discussed them. To summarise the training input was more or less double in the long course than in the short course. In the last session all the trainees of two PHCs were tested for post training evaluation by using the same tools as used in pre training assessment.

Contents of the Training Programmes

(1) Short course (four days)

First day - Pre-training evaluation and introductory lecture on mind brain and behaviour.

- Second day – (ii) Second session – Psychoses.
 (iii) Third session – Epilepsy.
- 3rd day – (iv) Fourth session – Mental Retardation.
 (v) Fifth session – Depression and other Neurotic disorders.
- 4th day – (vi) Sixth session – Post training evaluation and visit to Psychiatric Hospital.

(2) Long course (12 sessions of two and a half hours duration 2 sessions per week spread over 6 weeks).

- 1st week – (i) First session – Pre-training evaluation.
 (ii) Second session – Introductory lecture on mind, brain and behaviour
- 2nd week – (iii) Third session – History taking with psychiatric patients.
 (iv) Fourth session – Psychosis.
- 3rd week – (v) Fifth session – Management of Psychotic disorders.
 (vi) Sixth session – Neuroses.
- 4th week – (vii) Seventh session – Psychiatric emergencies.
 (viii) Eighth session – Epilepsy.
- 5th week – (ix) Ninth session – Mental retardation.
 (x) Tenth session – Mental health education.
- 6th week – (xi) Eleventh session – Question answer session.
 (xii) Twelfth session – Post-training evaluation.

Follow-up Services

After imparting the training doctors and MPWs of both the PHC's were asked as to what would be the convenient day of the week, they would like to run once a week mental health clinic at their sub centre dispensaries-PHC. The staff of Bichum PHC decided Friday while the staff of Jahota PHC decided Saturday for running mental health clinic, it was clearly explained to them that the MPWs will have to do initial identification through survey, make diagnosis and bring the patients to nearest dispensary where the doctor was supposed

to confirm the diagnosis and initiate management of these patients. Following this the MPWs were required to follow up the patients and give them necessary medication at the subcentre level. All the necessary drugs (chlorpromazine, imipramine, diazepam, gardinal sodium, phenobarbitone) were supplied from the project. They were asked to maintain a statistical record of these patients and give them weekly or fortnightly depending upon the condition of patients and distance from dispensary to his home. Regular weekly mental health clinics were required to be run in both the

PHCs. The number of cases identified diagnosed and treated were taken as measures of utilization of knowledge gained.

Supervision and Support from the Research Team

It was already told to the trained staff that the research team would help them run the mental health clinics, once in a week and support in terms of administrative permission, supply of drugs and expertise for difficult cases, will be provided.

The author was curious to know whether supervision is necessary at regular in-

tervals at all, after training the mental health personnel. In order to know this no supervision was provided at few dispensaries in both the PHCs. At the end of project statistics regarding cases identified by them was also obtained for the purpose of comparison of supervised and non supervised dispensaries.

A second post training evaluation of MPWs was done after a period of three months of completion of training to find out how much knowledge has been retained same tools as used in previous evaluations were used.

Instruments of Study

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| (1) Health Staff Interview Schedule (HSI) | -prepared at PGI Chandigarh and used in WHO collaborative study on strategies for extending mental health care. It was administered to both (doctors and MPWs) groups in one to one setting. |
| (2) Attitude Measurement Scale (AMS) | -To assess knowledge and attitudes of |
| (3) Knowledge Assessment Questionnaire (KAQ) | MPWs administered in group setting. |
| (4) Training Assessment Questionnaire (TAQ) | -To assess knowledge and attitudes of |
| (5) Diagnostic assessment Questionnaire (DAQ) | doctors administered in group setting. |

The AMS, KAQ, TAQ and DAQ were prepared at NIMHANS Bangalore and were used in ICMR Multicentred Study.

General Outline of the Project

Preparation	Selection of two comparable representative PHCs (Jahota & Bichun) and development of Training Material Collection of base line statistics of mental disorders in both primary health centres	3 months						
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">PHC JAHOTA</td> <td style="width: 50%; text-align: center;">PHC BICHUN</td> </tr> <tr> <td style="text-align: center;">Doctors - 6</td> <td style="text-align: center;">Doctors - 8</td> </tr> <tr> <td style="text-align: center;">MPWs - 39</td> <td style="text-align: center;">MPWs - 39</td> </tr> </table>			PHC JAHOTA	PHC BICHUN	Doctors - 6	Doctors - 8	MPWs - 39	MPWs - 39
PHC JAHOTA	PHC BICHUN							
Doctors - 6	Doctors - 8							
MPWs - 39	MPWs - 39							
Training	Pre training evaluation using HSI TAQ, DAQ KAQ and AMS Short Course Training 4 days 6 sessions	Long Course Training 6 weeks 2 sessions per week 12 sessions						
	Post training evaluation using same tools	2 months						
Monitoring and Evaluation	Once a week Mental Health Clinic at all dispensaries and subcentres was fixed Support: Administrative permission and supply of drugs to all Mental Health Clinics undercare of Doctor incharge of nearby dispensary.							
Evaluation	Supervision: Once a week supervision to half Geographical area of both PHCs by research team Collection of statistics of cases identified and treated in 3 months in both PHCs							
	Second Post Training evaluation after 3 months of training	4 months						
Report	Statistical analysis and writing report	3 months						

Results**Table 1****Comparison of Pre and Post Training scores of Doctors on HSI.**

	Jahota (N-6)	Bichun (N-8)	M.D.	df	t	p
Pre assessment Mean Scores	17.45 (± 2.76)	18.37 (± 2.82)	0.92	12	0.87	>0.05 (NS)
Post assessment Mean Scores	37.23 (± 1.68)	36.87 (± 1.83)	0.36	12	0.6	>0.05 (NS)
Mean diff	20.22	18.5				
df	10	14				
t	18.29	14.56				
p value	<0.01 (S)	<0.05 (S)				

Table 2**Comparison of Pre and Post Training scores of Doctors on TAQ.**

	Jahota (N-6)	Bichun (N-8)	M.D.	df	t	p
Pre assessment Mean Scores	29 (± 1.08)	30 (± 1.50)	1	12	1.29	>0.05 (NS)
Post assessment Mean Scores	31 (± 1.73)	32.5 (± 1.73)	1.50	12	1.50	>0.05
Mean diff	2.0	2.50				
df	10	14				
t	2.40	3.08				
p value	<0.05 (S)	<0.01 (S)				

Table 3**Comparison of Pre and Post Training scores of Doctors on DAQ.**

	Jahota (N-6)	Bichun (N-8)	M.D.	df	t	p
Pre assessment Mean Scores	11.0 (± 2.70)	12.0 (± 2.23)	1.00	12	0.83	>0.05 (NS)
Post assessment Mean Scores	15.0 (± 1.47)	14.0 (± 1.93)	1.00	12	0.98	>0.05 (NS)
Mean diff	4.0	2.00				
df	10	14				
t	3.20	2.27				
p value	<0.01 (S)	<0.05 (S)				

Table 4
Comparison of Pre and Post Training scores of MPWs on HSI.

	Jahota (N-39)	Bichun (N-39)	M.D.	df	t	p
Pre assessment Mean Scores	9.24 (± 2.1)	9.47 (± 2.5)	0.23	76	0.02	>0.05 (NS)
Post assessment Mean Scores	15.70 (± 1.82)	14.65 (± 2.0)	1.05	76	0.81	>0.05 (NS)
Mean diff	6.46	5.18				
df	76	76				
t	15.61	13.42				
p value	<0.001 (S)	<0.001 (S)				

Table 5
Comparison of Pre and Post Training scores of MPWs on KAQ.

	Jahota (N-39)	Bichun (N-39)	M.D.	df	t	p
Pre assessment Mean Scores	5.40 (± 2.70)	6.80 (± 2.72)	1.4	76	2.25	>0.05 (NS)
Post assessment Mean Scores	15.40 (± 5.47)	14.80 (± 4.1)	0.60	76	0.54	>0.05 (NS)
Mean diff	10.00	8				
df	76	76				
t	10.30	10.25				
p value	<0.001 (S)	<0.001 (S)				

Table 6
Comparison of Pre and Post Training scores of MPWs on AMS.

	Jahota (N-39)	Bichun (N-39)	M.D.	df	t	p
Pre assessment Mean Scores	8.8 (± 2.60)	8.6 (± 2.49)	0.20	76	0.35	>0.05 (NS)
Post assessment Mean Scores	12.2 (± 2.06)	12.5 (± 1.95)	0.3	76	0.66	>0.05 (NS)
Mean diff	3.4	3.9				
df	76	76				
t	6.53	7.80				
p value	<0.05 (S)	<0.05 (S)				

Table 7
Cases identified by MPWs in Two PHCs
(In 3 Months)

Diagnosis	No. of cases Identified	
	PHC Jahota (Short Course)	PHC Bichun (Long Course)
Epilepsy	24 (17.70%)	24 (18.5%)
Mental Retardation	42 (33%)	23 (17.7%)
Psychosis	26 (19%)	14 (10.8%)
Depression	32 (23.5%)	30 (23%)
Other Neurosis	12 (8.9%)	39 (30%)
Total	136	130
χ^2 2.31	df 4	p > 0.05

The effect of parameters like age, sex and experience of MPWs on effectiveness of training programmes was also investigated except in Jahota PHC (short training course) where female workers did significantly better on HSI on rest of the tools like KAQ and AMS. There was no difference in Pre and Post training assessment in both PHCs in relation to these parameters indicating that age sex and experience did not effect the impact of the training. This shows that all MPWs should be imparted training.

Comparison of scores of first and second post training evaluation on HSI, KAQ and AMS did not reveal statistical difference indicating that MPWs retained knowledge and their attitudes remained positive after 3 months.

Discussion

It is evident from the results that level of performance on different tools used for doctors as well as MPWs of both the PHCs is highly correlated indicating that tools used for this study are highly reliable.

The difference between pre and post training scores of doctors as well as MPWs of both the PHCs are statistically significant indicating an increase in their knowledge about priority mental disorders, potential contribution, actual contribution to mental health care and a positive change in their overall attitudes to mental health care on HSI scores. The pre assessment scores on HSI of the doctors and MPWs of two PHCs were compared. It was found that the two PHCs did not differ indicating that their performance after training on all the four components of HSI (i.e. potential contribution, actual contribution, overall attitudes and knowledge) was comparable in both the PHCs.

In the pre training assessment most of the health personnel could not name more than one or two persons suffering from different psychiatric problems in their catchment areas. They were not aware about psychiatric diagnosis of mentally ill persons. Their knowledge about the drugs used for the treatment of mental disorders was very limited and name of drug used (e.g. chlorpromazine, imipramine, dilantin sodium and phenobarbitone) was not mentioned by most of the trainees. While after the training, they could mention correct diagnosis and name of the drugs used for treatment of priority mental disorders. The health staff who did not know what kind of mental health work should be done in local health services, after training mentioned services like identification, management, followup and mental health education to the community - as part of their functions. Doctors as well as MPWs reported that after training they were more confident to handle these problems in the community which is also evident from the results of tools employed for assessing the impact of training. The findings of this study support the findings of Wig et al (1981) in Raipur Rani experience.

Comparison of level of knowledge regarding priority mental disorders of doctors and MPWs of both PHCs revealed a significant increase after training (Table 2, 3 & 5) regarding care of mentally ill in the community and mental health education to them. This indicates both training programmes have been equally effective in imparting knowledge to the trainees.

Comparison of pre training and post training scores of PHC Jahota as well as Bichun (Table 6) revealed statistically significant differences in attitude scores indicating positive change in the attitudes of health staff. After the training the MPWs were aware of mental health problems they no more believed in supernatural causation of these diseases, felt that more mentally ill people could be treated in the community, were positive about rehabilitation of mentally ill patients and they were convinced that epileptic patients can carry out their routine. These attitudes were contrary to the pretraining attitudes.

The overall impact of training on knowledge, attitudes, potential to carry out mental health work was significantly seen on doctors as well as MPWs of both PHCs. The statistics of new cases identified by trained staff revealed (Table 7) that more or less equal number of new cases were reported and diagnosed in 3 months.

From the results and experiences of this experiment it can be concluded that role of support and supervision after imparting training is very crucial. It was observed that in those dispensaries/subcentres of both PHCs where supervision was not provided very little or no mental health work was done though same training was imparted to both PHCs. The question comes, how much supervision, from this experience the author suggests that soon after training

once a week for about three months and once in 15 days when regular services have been established. Adequate support in terms of supply of drugs and expert opinion when needed is essential.

These findings may be of use when national Mental Health programme is to be launched in this country. It is suggested that short training courses of five days duration, 4 active days of training and one day for Pre and Post assessment may be adequate duration for training. The course contents have been suggested (Appendix) in 8 sessions of 2 hours each is optimum and adequate for primary care personnel. It does not give details which the health staff can not practice in field area.

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