

BasicNeeds

BasicRights

Evaluating Economic Outcomes of the Mental Health and Development Model in North India

Evaluation Team

Shoba Raja, BasicNeeds

Director, Policy and Practice

Sarah Kippen, BasicNeeds

International Research Coordinator

Saju C Mannarath, BasicNeeds

Research & Knowledge Officer

Subrat Kumar Mishra, BasicNeeds India

Programme Officer, North India

Shamaun Mohammed, NBKJ

Project Coordinator

Table of Contents

Acknowledgements	3
Abstract	4
Background	5
Methodology	8
Findings	10
General demographic details	10
Participation in the programme	10
Change in Individual Employment Status	12
Change in Type of Work	12
Change in Days of Missed Work Due to Illness	13
Change in Caregiver Burden	15
Hours Spent Caregiving per Week	15
Days of work lost due to caregiving in the last month	16
Change in Traditional Healer Expenses	18
Change in Hospital Treatment Expenses	18
Loss of assets for treatment	19
Change in Family Income	19
Assumptions and Limitations	20
Discussion & Recommendations	21
Conclusion	22
References	23
Annexure	
A. Intervention Check List	26
B. Economic Assessment Questionnaire	28

Acknowledgements

We would like to express our gratitude to the following partner organizations in Jharkhand and Bihar who were involved in the data collection. The names of those who conducted interviews are given in brackets.

1. Anupam Mahila Chetna Samiti, Hazaribag, Jharkhand (Bina Soni)
2. Binoba Aarogya Ewam Lok Shikshan Kendra, Islampur, Bihar (Archana Kumari)
3. Deep, Godda, Jharkhand (Saligram Sah)
4. Gram Nirman Kendra, Gaya, Bihar (Satyajit Kumar)
5. Gramin Samaj Kalyan Vikas Munch, Daltongunnj, Jharkhand (Khurshid Khan)
6. Gramin Vikas Sanstha, Imamgunj, Bihar (Rajesh Kumar)
7. Jan Sikshan Kendra, Jamui, Bihar (Triweni Yadav)
8. Jan Vikas Kendra, Singariyawan, Bihar (Rohit Ravidas)
9. Jeevan Dayinee Gramin Sansthan, Badh, Bihar (Jeevan Jyoti Prakash)
10. Joint Action Network, Nalanda, Bihar (Sachidanand Kumar)
11. Kasturba Gramin Vikas Parishad, Chandi, Bihar (Vijay Kumar)
12. Loherdaga Gram Swaraj Sanstha, Loherdaga, Jharkhand (Mr. Rojamat Ansari)
13. Lok Kalyan Sewa Kendra, Dumka, Jharkhand (Lilu Hembrom),
14. Lok Shakti Sikshan Kendra, Paraiya, Bihar (Ramadhar Singh),
15. Lokhit Sansthan, Seraikella-Kharsawan, Jharkhand (Jitendra Mahato)
16. Mahila Shilp Kala Kendra, Koilwar, Bihar (Ranjit Kumar)
17. NBJK, Hazaribag, Jharkhand (Amrit)
18. NBJK, Ranchi, Jharkhand (Sanjay Mishra)
19. Rashtria Jharkhand Sewa Sansthan, Satgawan, Jharkhand (Beronika Bakhla),
20. Samagra Sewa Kendra, Barachatti, Bihar (Vijay Kumar),
21. Sankalpkrit Sewa Manch, Patna, Bihar (Parmanand)
22. Shubham, Muzaffarpur, Bihar (Sanjay Kumar)
23. Stri Shakti, Hazaribag, Jharkhand (Chandan Kumar)

We also acknowledge the contribution from Dr. Usha Gopinath, former Research Manager of BasicNeeds, in making initial field visits to the project area and providing support on research design and training for the study and Mr. Bhasker, the former Project Coordinator of NBJK (Hazaribagh) who extended support for this evaluation in its initial stages.

We would also like to recognize these individuals for their support and assistance:

Ms. Uma Sunder, BasicNeeds
Ms. Sunita Singh, BasicNeeds &
Ms. Latha Jaganathan, BasicNeeds.

Finally, we would like to express our deep appreciation to the individuals with mental illness and caregivers who participated in this evaluation.

This evaluation was made possible by funding from Big Lottery Fund, UK.

Abstract

Poverty and mental illness compound one another, creating an environment of despair for some of the most vulnerable people in low and middle-income countries. Mental health intervention programmes in resource-poor settings such as rural Northern India must understand and address the economic burden of mental illness, in addition to clinical and functional outcomes. The BasicNeeds [BN]- Nav Bharat Jagruti Kendra [NBJK] intervention programme, located in rural Northern India, aims to improve quality of life for people with mental disorders and their families, through treatment, livelihoods and capacity building interventions based on the Mental Health and Development Model. This prospective evaluation assessed economic outcomes of 138 people with mental disorders involved in the BN-NBJK programme over a period of two years. We found that the intervention programme appeared to have a positive impact on key economic indicators, including fees spent on hospital visits, employment status, number of days of work missed due to illness, and number of caregiver hours. The median family income improved only slightly. Findings from this study indicate that a multi-faceted mental health intervention programme can improve key economic outcomes for people with mental disorders in a resource-poor setting.

Background

Mental Illness Burden:

Mental illness contributes significantly to both mortality and disability throughout the world. Based on findings from a World Health Organization (WHO) 2004 report, neuropsychiatric conditions account for 31.7% of the global disability burden in terms of years lived with disability. Furthermore, 14% of years of life lost (YLL) or mortality due to disease is attributed to mental disorders (WHO, 2004). This burden is most pronounced and steadily climbing in low- and middle-income countries (LAMICs) where the treatment gap for mental illness remains wide (Ustun et al., 2004).

In response to this alarming trend, in 2007 a movement launched by the Lancet Global Mental Health Group has issued a call for more action-motivated research in the field of global mental health (Horton, 2007). Additionally, the WHO has recently established a Mental Health Gap Action Programme to support stakeholders in scaling up services and coverage in areas where mental health resources are currently scarce (WHO, 2008). A central objective of both of these initiatives is to provide evidence to policy makers, donors and health professionals on viable and effective treatment alternatives in low- and middle-income countries.

Poverty and Mental Illness:

Mental disorders cannot be effectively treated without properly addressing an environment of poverty and discrimination (Saraceno and Barbui, 1997). In addition to premature mortality and disability, many individuals with mental disorders also suffer from lives of poverty and destitution (Muntaner et al., 2004). Evidence suggests a bi-directional relationship between poverty and mental illness. Insecurity and hopelessness associated with job and income status can lead to mental illness (Patel and Kleinman, 2003). Likewise, in 2008, Raja et al. (forthcoming) found that a loss of productivity due to mental illness exacerbates economic conditions for individuals with a mental disorder as well as their families.

While a poverty and mental illness link has been established from sociological studies dating back to 1939 (Faris and Dunham, 1939), this connection has recently been called into question. One study based on household survey data across five LAMICs claims that poverty is not a significant determinant of mental illness (Das et al., 2007). Corrigan et al.'s rebuttal to this controversial finding highlights the need for appropriate economic indicators to accurately measure economic burdens for people with mental disorders and their families (Corrigan et al., 2008). Assessing household expenditure without also measuring debt associated with mental illness yields misleading results. Treatment for mental disorders usually involves direct costs such as medication, clinic visits or hospitalization. Additionally, people with mental disorders often incur indirect costs such as reduced employment status and lower levels of educational attainment (Insel, 2008). All costs associated with mental illness must be considered when assessing economic outcomes.

Economic Outcomes

Appropriate outcome measures for mental health treatment programmes in LAMICs are a topic of much debate. Some have argued that schizophrenia patients have significantly better outcomes in LAMICs than in high-income countries; however, the outcome measures used most often in these studies lack cultural appropriateness and may not be described as truly measuring a change in quality of life (Cohen et al., 2007). Within the field of global mental health, there is a need for better outcome studies that use culturally appropriate measures to assess real positive change in quality of life (Isaac et al., 2007). This will aid policy makers and donors in making more informed decisions about mental health treatment initiatives in LAMICs.

Economic change as a measure of quality of life indicates more than just economic stability or instability. A 2008 qualitative study conducted by Raja et al. (forthcoming) in South India found

social benefits of better employment opportunities to be very important to an individual's sense of belonging within their family and community. This improved level of functionality and social acceptance within families and communities is a vital part of the recovery process for people with mental disorders, as suggested by Zanker (forthcoming) in 2008. Improved economic outcomes over time can also demonstrate an individual's ability to break out of the cycle of poverty and mental illness. Therefore, the effect of mental health interventions must go beyond clinical symptom alleviation to improve functionality and economic outcomes, in order to bring about sustainable positive change in people's lives.

Mental Health and Poverty in India:

In India where 33.5% of people live below the national poverty line, most poor people with mental disorders cannot access treatment (World Bank, 2008). Over 75% of the population resides in rural areas, while the few psychiatrists (3.5 per 1 million people) are located in cities. In 2000, prevalence rates for mental disorders in India was estimated at 73 per 1000 (Ganguli, 2000). Many people with mental disorders rely upon traditional healers for treatment.

A few recent outcome studies have been conducted on existing mental health initiatives in India. Murthy et al. studied outcomes for people with schizophrenia who had participated in a community outreach programme. The study found that families participating in the programme did experience some financial gains in reduced expenditures for external health care as well as increased opportunities for earning income (Murthy et al., 2004).

The Madras Longitudinal Study examined various outcomes for schizophrenia patients over a 20-year period of time. Significantly, the study found occupational and marriage rates for this sample to be much higher than published findings for schizophrenia patients in high-income countries. The study was conducted with 60 patients through an outpatient medical department at Madras Medical College in Chennai, South India (Thara, 2004).

In 2008, Raja et al. (forthcoming) completed a study assessing functional and economic outcomes for participants in a community-based mental health treatment programme in South India. The study found increased levels of functionality to be linked with increased economic outcomes. Economic gains from participation in the programme included increased opportunities for earning income as well as reduced treatment expenses.

Study Setting: Bihar and Jharkhand

Bihar and Jharkhand (once a united state but separated in the year 2000) represent an area in Northern India covering 173,877 square kilometers. Jharkhand now produces 70% of the output of pre-2000 Bihar, while Bihar remains the poorest state in India. The area is comprised of several different tribal groups and languages creating diverse rural and urban populations. The vast majority of its population resides in rural areas. Agriculture represents the largest industry in both states (Deaton and Dreze, 2005).

Furthermore, two of the poorest states in India habitually under spend their available funding. Only 16.25% of the health budget in Jharkhand has been spent in recent years. Likewise, rural and urban development funds have only been partially utilized at 29% and 2.60%. Bihar holds the lowest utilization rate of a centrally-funded development programme offering special services for poverty alleviation (World Bank, 2005).

Bihar has a per capita income of little more than Rs. 6, 610, according to the Indian Government Central Statistics Organization (CSO, 2008). Over 40% of Bihar's population is living below the poverty line. Regarding health care, only 10% of children are immunized in Bihar and child mortality levels are among the highest in India (World Bank, 2008). Bihar until a little over year ago did not have a psychiatric hospital or any other effective government run mental health services. In fact the building in Koilwar (50 kms from Patna the state capital) designated by a government order in March 2007 as the main psychiatric hospital, was until September 2007

occupied by the Central Reserve Police Force (CRPF). The urgent need for accessible mental health services in Bihar has been highlighted in recent months, in the aftermath of a devastating flood, where many people have experienced post traumatic stress disorder symptoms (Jha and Rhaghaven, 2008).

Jharkhand has seen a rise in economic growth in recent years with its poverty rate declining by an average of 2% per year. However, around 40% of the population still lives below the poverty line, similar to Bihar (Gupta, 2004). Jharkhand's high infant mortality rate of 71 per 1000 live births highlights the need for access to adequate health care within the region (ILO, 2008).

The Central Institute of Psychiatry resides in Ranchi and is run by the central government, offering some support to medical staff throughout the state. Additionally, The Ranchi Institute of Neuro Psychiatry and Allied Science (RINPAS) is a state mental health institute run by the Jharkhand government. Still, NBJK remains the only NGO addressing mental illness in the state, implementing mental health camps in collaboration with RINPAS.

Within a context of absolute poverty as is the case for around 40% of people living in Bihar and Jharkhand, the added economic burden that mental illness brings to a family makes this population among the most vulnerable.

BasicNeeds-NBJK Intervention Programme:

BasicNeeds is an international mental health organization, which has developed a community-based approach to mental health called the Mental Health and Development Model (MHDM). This strategy introduces cost-effective community mental health care into low and middle income countries (LAMICs) through five separate but interlinked modules: capacity building, community mental health, sustainable livelihoods, research and policy and administration (Mental Health and Development: a model in practice, 2008). The Model facilitates access to mental health treatment as well as livelihood support for people with mental disorders. Stressing the link between mental health and development, BasicNeeds (BN) puts these five modules into practice through its work with local partner organizations.

BasicNeeds India Trust (BNI) is a registered NGO in India, implementing the MHDM in India in partnership with local voluntary organizations. Since its formal inception in 2001 BNI, working out of Bangalore in South India, has implemented a large programme in South India working with six local partners to reach 6448 people with mental illness.

Nav Bharat Jagruti Kendra (NBJK) is a development organization working in Bihar and Jharkhand. NBJK's 350 local partner organizations support rural people impacted by poverty. Its mission is to educate, organise and empower rural poor by promoting development as a liberating force for achieving social justice, economic growth and self reliance.

In 2002, a pilot community mental health programme was launched in Jharkhand and Bihar under a tripartite partnership between BasicNeeds, BasicNeeds India Trust and NBJK. NBJK selected 25 partners to work in the programme. In March 2006, the follow-up programme received support from Big Lottery Fund, United Kingdom for a period of three years. The aim of the project is to develop locally sustainable initiatives for supporting people with mental health problems living in poor communities in the two Indian states of Bihar and Jharkhand. This project is intended to encourage people with mental disorders to participate in the development process in their own communities. The programme covers 7 districts (Nalanda, Nawada, Gaya, Patna, Bhojpur, Chakai, Muzaffarpur) in Bihar and 9 districts (Hazaribag, Ranchi, Saraikela-Kharsawan, Koderma, Loherdaga, Garhwa, Palamu, Godda, Dumka) in Jharkhand. The intervention programme includes services implemented through periodic mental health camps, including diagnosis obtained from a local psychiatrist, medication, and counseling. Other interventions include self help groups, vocational training, and home visits. Programme participants are also assisted in obtaining employment placements, accessing government resources, and receiving loans.

This study aims to measure the economic impact of this community-based mental health programme on the lives of people with mental disorders who have participated in the programme in Bihar and Jharkhand over a two-year period of time.

Methodology

This prospective study evaluates economic outcomes for participants in the community mental health programme after enrollment in the programme for two years. The study's primary objective is to measure change in economic outcomes between the time of referral to the programme (baseline) and a two-year follow-up assessment. A secondary objective is to identify specific interventions received by the participants in the programme after two years of enrollment.

Economic change is measured by the following indicators:

- employment status
- number of work days lost in the last two months due to illness
- number of hours per week spent caregiving by the primary carer
- number of caregiver work days lost in the last two months
- treatment expenditures
- loss of assets due to illness
- mean family annual income

The following evaluation tools were used to collect relevant data:

- Clinical diagnosis (used as categorical data) was obtained from local psychiatrists during the follow-up phase of data collection.
- An Intervention Checklist was developed by BasicNeeds and administered during the follow-up assessment to ascertain the study participants' level of involvement and satisfaction with specific interventions. (See **Annexure A**).
- Economic Assessment Questionnaire (Murthy et al, 2005) was pilot tested, translated and adapted for use in this study (See **Annexure B**).
- Individual Files¹ were used as a source for basic demographic data on each study participant: including age, sex, marital status, clinical history, living situation, education, programme history and length of time enrolled in the programme.

Sample

This cohort includes 138 new programme entrants between October 2005 and June 2006 in the NBJK project areas of Bihar and Jharkhand. Programme participants from 23 different NBJK partner organizations were included in the study. Two partner organizations declined participation in the study. This purposive sample included 46 people with mental disorders from each of the following categories at follow up: 1) participants who were involved in income generating activities; 2) participants who received both financial support from the programme and were involved in income generating activities; and 3) participants involved in household (non-remunerative) work. Each partner organization recruited six participants--two people from each category--through stratified purposive sampling. Also, only entrants involved with the programme for at least two years were considered for recruitment into the study. Verbal informed consent was obtained from each individual participating in the study.

Training and Pilot Testing

One field worker from each of the 23 NBJK partner organizations participated in a one-day research training workshop conducted by BasicNeeds research staff. The field workers were

¹ **Individual files:** Each partner organization maintains Individual Files for all participants enrolled in the programme. The file is maintained in the respective organization and is frequently updated by the field staff. These files include a factual account of the individual, including information on their background and history; their medical information, including type of mental illness, symptoms and treatment; and their family situation. The file also documents the interventions of the programme and changes observed by field staff during home visits, at mental health camps, etc.

instructed on how to administer the research instruments and record data from the study participants. They were also trained to extract basic demographic data from Individual Files.

In December 2007, The Economic Assessment Questionnaire was translated from English into Hindi by one translator and then pilot-tested by field staff in the project area with four people with mental disorders and their families. No further modifications were found necessary after the pilot study.

Data collection:

Baseline:

The baseline assessment took place in December 2007 and January 2008. Under the coordination of two NBJK staff members trained in applied research, trained field staff first extracted and recorded general demographic data (i.e. age, sex, marital status, clinical history, living situation, education) from Individual Files, which have been regularly maintained by field staff since study participants entered the programme. They then conducted personal interviews with each respondent using the Economic Assessment Questionnaire. Respondent refers primarily to the individuals with mental disorders participating in the study. In a few cases the caregiver accompanying the individual during the interview gave responses on behalf of the individual when the study participant was not able to answer the question due to illness. During the baseline assessment, participants were asked to recall their responses at the time of enrollment in the programme two years earlier.

Follow up phase:

The follow-up assessment took place in June and July 2008 where respondents were asked to express their responses at the time of data collection. The same field workers collected follow-up data through personal interviews, using a modified version of the Economic Assessment Questionnaire (See Annexure B). The follow-up version of the questionnaire includes a few additional questions to measure the study participants' perception of the level of programmatic impact on any change in key economic outcomes between baseline and follow up. Additionally, in the follow up phase of data collection, field workers administered the Intervention Checklist (See Annexure A) to respondents cross-referencing this information with Individual File data on programme history. Any change in demographic information from Individual Files was also noted.

Data Analysis:

Data cleaning was conducted by one BasicNeeds research staff member and another data entry operator translated the data from Hindi into English, under guidance from the BasicNeeds staff member, and entered the English translation into an Excel spreadsheet.

A BasicNeeds Research Officer, trained in quantitative analysis, analyzed the data using EpilInfo software. Descriptive statistics including means, medians, frequencies and cross tabulation with categorical data² were used to analyze the data from the Economic Assessment Questionnaire. A change in economic status was measured by a comparative difference between baseline and follow-up responses on economic indicator items of the questionnaire. Frequencies and some cross-tabulation were used to analyze data collected from the Intervention Checklist.

² Categorical data includes: age, sex, education, marital status, work engagement, staying status, main source of income, previous work status, diagnosis of disease and its severity.

Findings

1. General demographic details:

- **Diagnosis:** As shown in figure 1, 35% of the respondents were diagnosed with schizophrenia; followed by depression (19%), bipolar affective disorder (18%) and psychosis (15%). Other diagnoses included epilepsy (3%), OCD (2%), mood disorders (2%) and panic, phobic & anxiety disorders (7%).
- **Other demographic details:** A higher number of females (59%) participated in the study than males (41%). Thirty percent of the study participants were illiterate and 34% had left school before finishing their 3rd standard education. On household composition, 50% of the study participants lived with parents or extended family and 45% lived with a spouse and children. Also, 59% of study participants were married and another 6% were divorced. The average family size included 6 people. Notably, the mean age of study participants was 30.9 years; well within the prime productive age for an individual to earn and take on household responsibilities in a family. Only 38% of respondents had ever held an income-generating position prior to baseline.

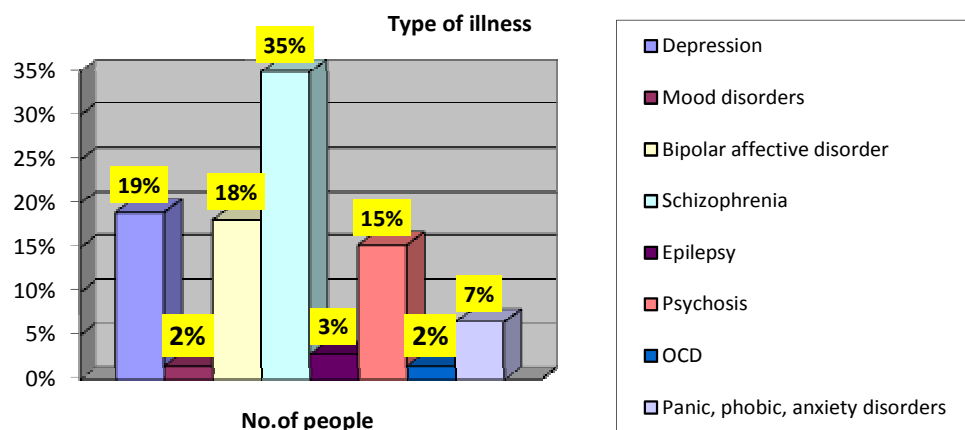


Figure 1 Type of Illness

2. Participation in the Programme:

The level of participation in the programmes was dependent upon the individual needs of the respondents as well as the availability of resources with the implementing partner organization. The Intervention Checklist instrument measured the extent to which the study participants were involved in specific interventions from enrollment in the programme to follow-up. Figure 2 shows the percentage of study participants who had been involved with each specific intervention at the time of follow up.

At follow-up, 77% of the study participants had attended mental health camps, as shown in figure 2. All 77% found this activity to be useful. Only one participant was referred to other services. Of the study participants, 80% received counseling. In the case of medical treatment, 100% of the participants received treatment either through mental health camps (76.8%) or clinics (23.2%). Almost all (93%) of those who received medicines said they were useful.

At the time of follow-up, over half of the participants (61%) had been assessed for financial assistance. A majority of those who were assessed for financial assistance (60%) also participated in a credit programme. Additionally, 23% participated in vocational training and 8% were placed in employment. Half of the participants were able to access government assistance through the intervention programme and 23% also participated in self help groups (SHGs). Overall, 78% of the respondents expressed satisfaction with the programme.

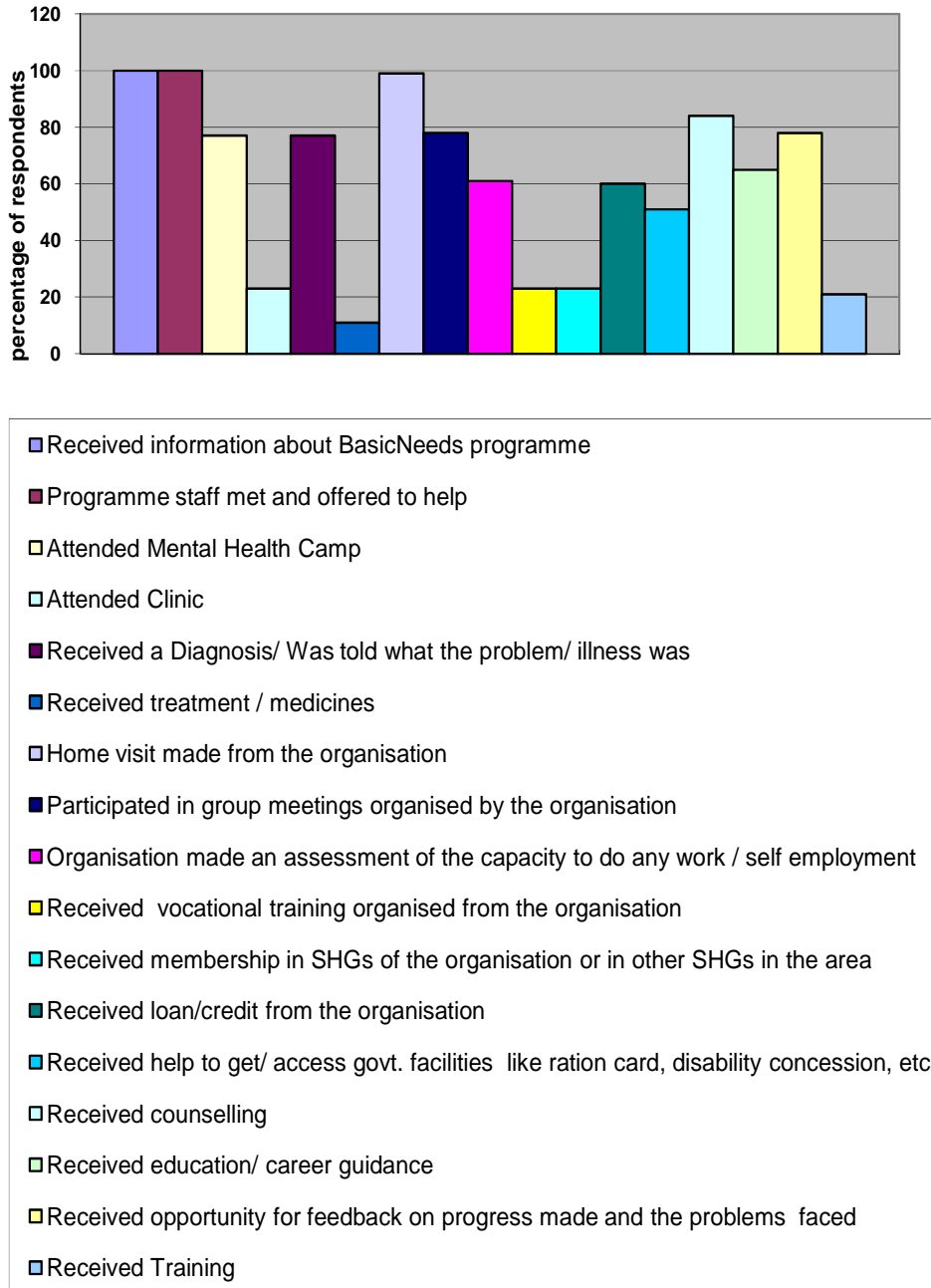


Figure 2 Participation in Specific Interventions

3. Change in Individual Employment Status

At baseline, 17% of the participants were not employed, meaning they did not participate in either household or income-generating work as shown in figure 3. About 10% claimed they were unemployed because they felt they did not have the capacity to work and another 7% felt they had the capacity for work but did not have the opportunity.

Significantly, at follow-up the percentage of unemployed individuals dropped down to 4.4% as shown in figure 3. The percentage of study participants with fulltime income-generating work has risen from 9% to 31%. Similarly from baseline to follow-up, those participants engaged in fulltime household work also increased from 12% to 19%. About 70% of the participants attributed some or most of this change to the intervention programme. The intervention checklist data indicates that only 8% of the participants were given direct support to secure employment through the intervention programme. However, indirect programme support such as increased functionality through treatment access and other interventions focused on capacity building (such as self help group membership, and vocational skills training) could have also contributed to this notable decrease in unemployment.

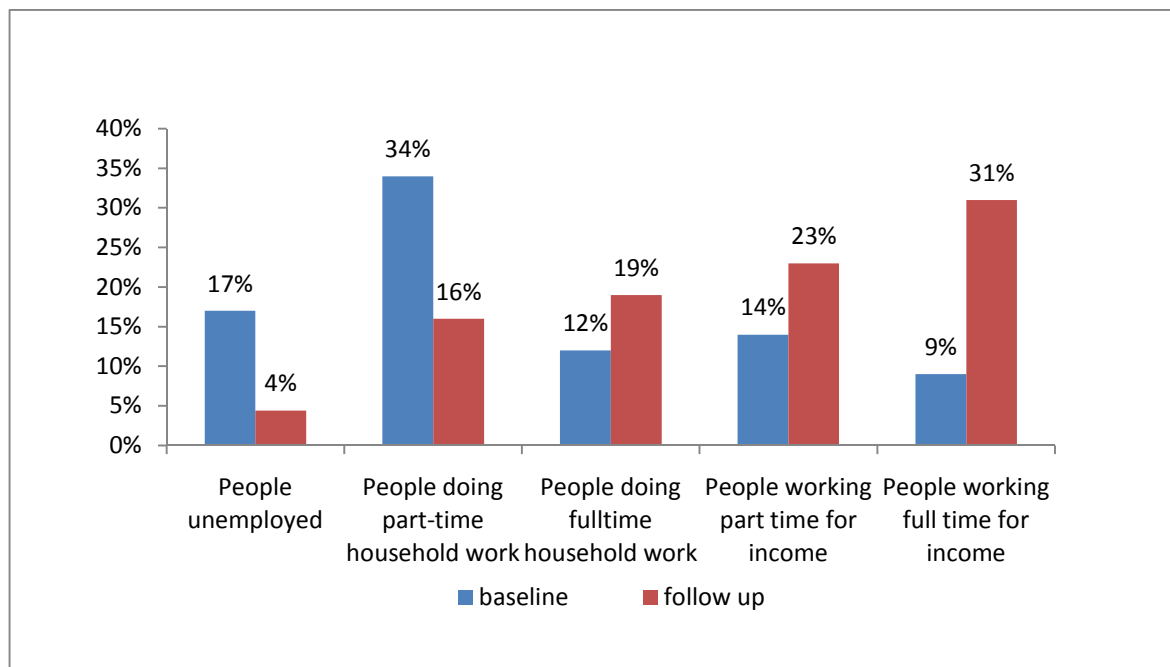


Figure 3 Individual Employment Status of People with Mental Disorders

4. Change in Type of Work:

The number of employed study participants increased from 46 to 97 at follow-up. At baseline, the main source of income for a majority (51%) of study participants was related to agriculture, either through a family-owned farm or as an agricultural labourer. At follow-up, 61% of those employed participants were engaged in skilled labor, such as business (28%), skilled trades (17%), grocery shop work (10%) and teaching (6%), as shown in figure 4. Since agricultural work is variable and seasonal, this increase in the number of skilled occupations available to the study participants is significant.

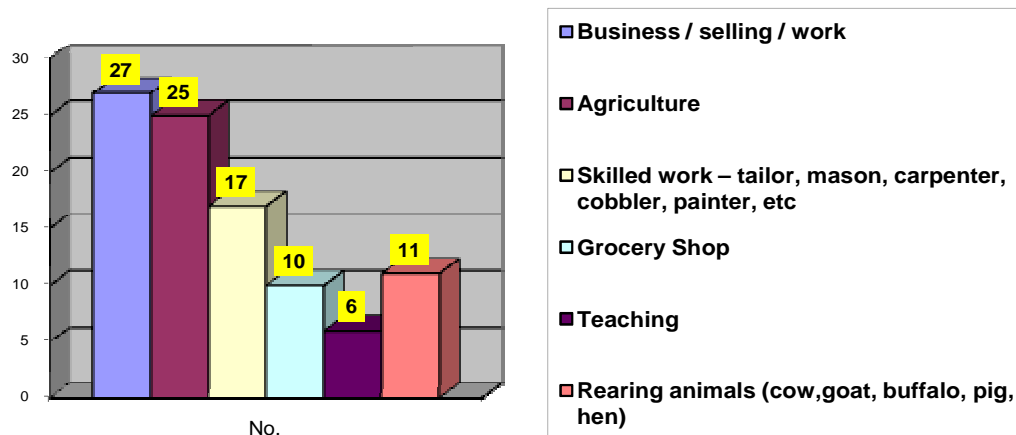


Figure 4 Type of Employment at Follow-up

5. Change in Days of Missed Work Due to Illness:

At baseline, 85% of the employed participants missed work in the previous month due to their illness. Notably, only 8% of employed participants had missed work due to illness in that last month at follow-up. This shows that overall capacity for work has increased considerably after participation in the intervention programme.

At baseline, the mean number of days of work lost over the previous month was 21.6 for all employed participants. At the time of follow-up, the mean number of days of work lost decreased significantly to 4.5. (See Figure 5). At follow up, men marginally lost less days of work (11 days) compared to women (14 days). Work history prior to baseline did not have much influence in terms of work days lost at follow up.

Participants with schizophrenia still lost 9.7 work days at follow up, although they show a marked improvement from baseline (20.7). Participants with all other diagnoses (including epilepsy) almost eliminated work days lost due to illness between baseline and follow-up. (See **Table 1** for details). This notable decrease in days of work lost due to illness further indicates functionality for the individual and an increased capacity for work.

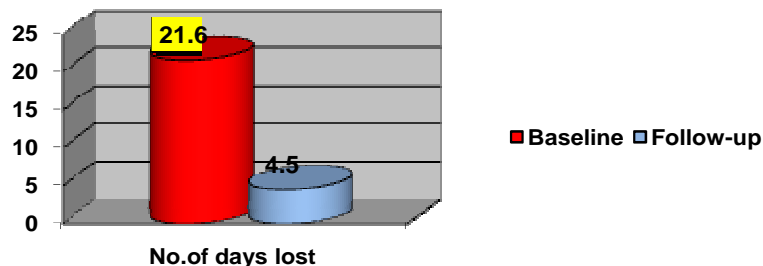


Figure 5: Mean No. of Work Days Lost in the Past Month

Mean No. of Work Days Lost (Per Month) for People with Mental Disorders				
	Mean Scores	baseline	follow-up	difference
	Total	21.6	4.5	17.1
Age	Up to 20 years	20	0	20
	21 – 30 years	20.7	0	20.7
	31 – 40 years	23.4	2.3	21.1
	41 – 50 years	20.3	1.6	18.7
	Above 50 years	0	12	-12
Sex	Male	20.6	1.6	19
	Female	22	6.2	15.8
Type of work at baseline	Household work	23.8	1	22.8
	Income generating activity with financial support	20.8	5.6	15.2
	Income generating activity without financial support	21.6	1	20.6
Education	Never been to school	16.4	6.7	9.7
	Completed 3 rd Standard	22.5	1	21.5
	Completed 7 th Standard	21.5	5	16.5
	Matriculation pass	25	1	24
	Attended college	28.3	2	26.3
Marital status	Unmarried	22.4	0	22.4
	Married	21	4.8	16.2
	Divorced	23.3	2	21.3
	Widow/ widower	20	0	20
Living arrangement	Alone	30	0	30
	Husband / wife	27.5	0	27.5
	Husband / wife & children	21.5	5.5	16
	Father/ mother/ relatives	20.6	1	19.6
Main source of family income	Agriculture and daily labour	58.7	7.4	51.3
	Service / Job	19.2	2	17.2
	Business	31	0	31
	Others	30	1	29
Employed before baseline	No	22.2	5.5	16.7
	Yes	21.3	1.5	19.8
Diagnosis of disease	Depression	24.3	1.5	22.8
	Bipolar disorder	22.3	1	21.3
	Schizophrenia	20.7	9.7	11
	Epilepsy	22	0	22
	Psychosis	18.3	1.5	16.8
	Panic/phobic/anxiety disorders	0	0	0
Severity of illness	Mild	21.2	5.5	15.7
	Moderate	24	1.5	22.5
	Severe	5	0	5

Table 1: Mean No. of Work Days Lost (Per Month) for People with Mental Disorders

6. Change in Caregiver Burden:

Hours Spent Caregiving per Week

Primary caregivers of the participants were mothers (31%), fathers (18%), wives (16%) and daughters (14%). Other primary caregivers included husbands (12%), sons (6%), and brothers (3%). At baseline, the mean number of hours primary caregivers spent taking care of a family member with a mental disorder was 11.1 hours per week. Of the primary caregivers, 22% spent more than 16 hours per week caregiving and another 59% spent between 5 and 15 hours per week. The mean number of hours spent by secondary caregivers, or other family members who offer support in addition to the primary caregiver, was 6.4 hours per week.

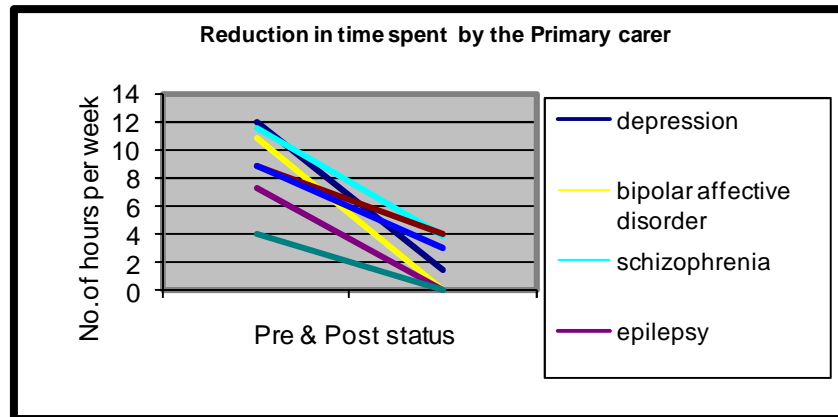


Figure 6 Reduction in Caregiving time

In contrast, at follow-up, 93% of the respondents reported no caregiving burden for primary or secondary caregivers. The mean number of hours primary caregivers spent caregiving per week was reduced by a mean score of 7.8 hours a week between baseline and follow-up. Caregiving hours for men with mental disorders was reduced by 9.6 hours per week, while caregiving hours for women decreased by 6.4 hours per week. The caregiving burden for participants who were unemployed at baseline was reduced by 12.4 hours per week at follow up. Employed participants at baseline found their caregiving burden decreased by 6 to 7 hours per week at follow up. Those living only with a spouse decreased the caregiving burden significantly by 16.6 hours a week compared to participants in other living situations. Of those study participants who experienced a decrease in caregiving burden between baseline and follow up, 68% attributed the change mostly or entirely to the BasicNeeds-NBJK programme. (See **Table 2**) The most significant gains to this indicator were made by those participants with illnesses classified as severe (18.8 hours). Because this demographic represents the participants with the greatest need for caregiving assistance at baseline, this drastic reduction in caregiving hours is significant.

Mean hours spent by Primary carer per week caregiving (difference between baseline and follow-up)		
Category		Hours
	Total	7.8
Age	Up to 20	9.6
	21 - 30	8.8
	31 - 40	7.4
	41 - 50	10.5
	Above 50	5.2
Sex	Male	9.6
	Female	6.4
Type of work at baseline	Household work	12.4

	Income generating activities with financial support	6.6
	Income generating activities without financial support	7.7
Educational qualifications	Never attended school	7.5
	Completed 3 rd standard	8.9
	Completed 7 th standard	2.3
	Matriculation pass	10
	Attended college	16.7
Marital status	Unmarried	8.1
	Married	8
	Divorced	5.7
	Widow/widower	2.7
Living Situation	Alone	12.5
	Husband/wife	16.6
	Husband/wife & children	6.7
	Father/mother/relatives	9.6
	Others	-0.8
Main source of family income	Agriculture and daily labour	30.4
	Service industry	6.3
	Business	8.6
	Others	10.4
Employment prior to baseline	No	10.6
	Yes	12
Severity of illness	Mild	7.9
	Moderate	7.1
	Severe	18.2

Table 2 Difference in hours per week spent caregiving

Days of work lost due to caregiving in the last month

At baseline 33% of the primary caregivers lost at least 20 days of productive work in the previous month due to caregiving. In 62% of these cases, the primary caregiver was employed as a laborer or agriculture worker. Similarly, 28% of the secondary caregivers also lost at least 20 days of work in the previous two months due to caregiving responsibilities.

At follow-up, only 6.5% of the primary caregivers lost any days of work due to caregiving, as shown in figure 5. Additionally, the mean number of work days lost for the primary caregiver was 0.27, ranging from one to five days. At follow up, only four secondary caregivers (2%) lost days of work due to care giving. Across diagnosis categories, days of work lost by caregivers was most reduced at follow up among those with mood disorders. (See **Table 3.**)

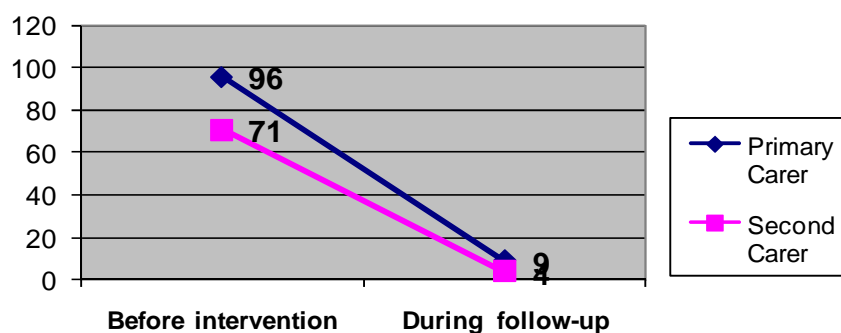


Figure 7: Change in No. of Caregivers Who Lost Work (Per Month)

Mean no. of days of work lost for the Primary Carer in the previous month (difference between baseline and follow-up)		
Category		Days
	Total	17.2
Age	Up to 20	7.4
	21 - 30	10.5
	31 - 40	5.2
	41 - 50	9.6
	Above 50	6.4
Sex	Male	6.6
	Female	7.7
Type of work at baseline	Household work	8.9
	Income generating activities with financial support	2.3
	Income generating activities without financial support	10
Educational qualifications	Never attended school	8.1
	Completed 3 rd standard	8
	Completed 7 th standard	5.7
	Matriculation Pass	2.7
	Attended college	12.5
Marital status	Unmarried	6.7
	Married	9.6
	Divorced	-0.8
	Widow/widower	11
Living Situation	Alone	6.3
	Husband /wife	8.6
	Husband /wife & children	7.1
	Father/ mother/ relatives	10.4
	Others	10.6
Main source of family income	Agriculture and daily labour	57.9
	Service industry	10.9
	Business	7.6
	Others	4.9
Employment prior to	No	5.9

baseline	Yes	7.9
Diagnosis of disease	depression	18.2
	mood disorders	32.50
	bipolar affective disorder	20
	schizophrenia	16.3
	epilepsy	16.3
	psychosis	7.4
	OCD	0
	Panic/phobic/anxiety disorders	12.20
Severity of illness	Mild	17
	Moderate	19.9
	Severe	15

Table 3: Mean Difference in No. of Days Lost Caregiving

7. Change in Traditional Healer Expenses:

At baseline, 90 participants had consulted traditional healers. On average, they made three visits in the preceding two months each time paying an average of Rs.173 to the healer. Additionally, they spent an average of Rs.48 on travel for each visit to the traditional healer. Time spent waiting for a consultation averaged 60 minutes. The mean amount of money spent on visits to traditional healers during the two months prior to baseline was Rs.955. At follow-up, only six participants had visited a traditional healer for treatment since commencing the treatment programme two years earlier, as shown in figure 8.

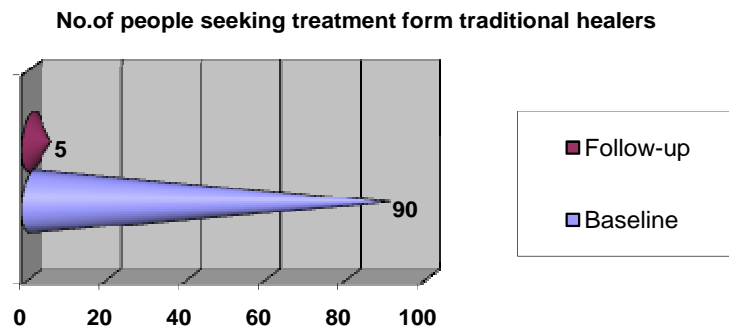


Figure 8: No. of Participants Taking Treatment from Traditional Healers

8. Change in Treatment Expenses:

In the two months prior to baseline, 40% of the participants had visited hospitals for treatment and 24% percent of the participants were admitted to the hospital at least once. The average fee paid for hospital visits at baseline was Rs.97. Of those who had visited the hospital during the two months prior to baseline, the mean hospital expense was Rs.1809.

At follow-up, 77% of participants had received medical assistance at mental health camps in the last six months through the BN-NBJK programme. Twenty-three percent had received medical treatment from mental health clinics at hospitals or health centres. The mean distance to the hospital was 50 kms. Only one participant was admitted to the hospital in the six months prior to follow up. The amount paid towards the consultation varied between Rs.20 and Rs.75. The travel cost of visiting hospitals reduced considerably from Rs.117 at baseline to Rs. 65 at follow-up. (See **Table 4**) The mean total hospital treatment cost for the six months prior to follow up was Rs.1222. However, the time taken to access treatment has decreased to 71 minutes compared to the time taken to reach the traditional healer (about 200 minutes). Significantly, the mean cost of

medicines per month was Rs.547 at baseline and only Rs. 2.75 at follow-up. At follow up, all participants were accessing medication at minimal cost.

Medical treatment	Baseline	Follow-up
No. of people accessing medical services	52	120
Mean amount spent on travel	Rs.117	Rs.65
Mean amount spent on fees	Rs.97	Rs.42
Mean amount spent on medicines	Rs.547	Rs.2.75

Table 4: Medical Treatment Expenses over Two Months

9. Loss of assets for treatment:

At baseline, 32% of the participants' families had sold their property for due to the study participants' illness. Of those who sold property, the mean value of the property sold was Rs.3159. Notably, 21% sold properties worth more than Rs.5000. Between baseline and follow-up, only two people sold any property for treatment, worth Rs.100 and Rs.1000. (See Figure 9).

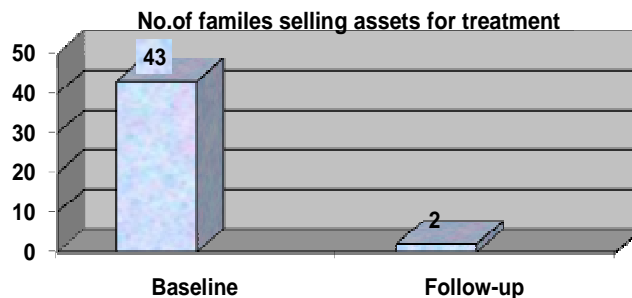


Figure 9 No. of Families Selling Assets for Treatment

10. Change in Family Income:

The median family annual income of the study participants has seen a slight increase from Rs.13,418 to Rs.14,687 between baseline and follow-up. The increase was highest (Rs.11,805) among people in the age group between 40 and 50 years. Interestingly, the increase was almost negligible (Rs.369) between women and men. While married participants had a median income increase of Rs. 2934, the unmarried participants saw a decrease in income of Rs.1653. Those who stayed with parents and others had an increased mean income of Rs.5537, whereas those living with their spouse had an increase of Rs.3914. Furthermore, participants who were employed at baseline experienced a median income increase of Rs.7867.

Participants with psychosis and anxiety disorders saw a substantial increase in their income between baseline and follow up, while those with epilepsy, depression and schizophrenia actually saw a decrease in income. See Table 5. These findings point to a difference in economic outcomes across diagnosis groups that needs further study.

Notably, families with an annual income below Rs.12,000 decreased from 16% to 5% of participants. So, the poorest demographic among this sample has diminished substantially. Nearly half of the participants claimed that the intervention programme played a vital role in any positive change to their income level.

Type of Illness	Median Family Income per Annum		
	Baseline	Follow-up	Difference
depression	16762	11000	-5762
mood disorders ³	--	--	--
bipolar affective disorder	11427	14296	2869
schizophrenia	11785	10083	-1702
epilepsy	14400	6600	-7800
psychosis	16400	25447	9047
panic/phobic/anxiety disorders	27000	37622	10622

Table 5 Difference in Family Income across Categories of Illness

Assumptions and Limitations

This study was conducted with some limitations that may influence the quality of our findings. As a control group would have presented ethical difficulties, the impact of the intervention programme cannot fully be determined from the data presented. At follow-up, the study participants rated the impact of the intervention programme on changes in key economic indicators to help compensate for the lack of a control group, although we recognize that this is no substitute for a control group.

Additionally due to feasibility constraints, the study was introduced two years after this sample began the intervention programme. Recall bias may have influenced the answers some participants gave to baseline questions. However, individual files, which included data from the time of entry into the programme, were also cross-referenced with participant responses to confirm the validity of this data.

The study sample was taken from participants of an intervention programme working with 23 NBJK partnership NGOs spread across 16 districts of the two states of Bihar and Jharkhand. Consequently, not all participants had identical experiences within their programmes. We, however, feel that the commonalities described in this paper are substantial and worthy of evaluation. Another limitation in our data is that translated responses from Hindi into English did not go through a back translation process. Since no diagnosis had initially been recorded in most cases, the coordinating agency in North India (NBJK) had to recruit the psychiatrists during the follow-up phase to give diagnoses, the individual files where the symptoms were recorded, and the treatment they were undergoing. Also, the field staff may have some researcher bias since they work with the population being studied. Study participants may have been reluctant to give honest answers to the field workers who work with them as well.

Finally, during data collection, income was recorded based upon variable units (i.e. per day, per week, per month, or per season) depending upon the nature of employment. The annual income analysis was based upon a conversion assuming the following: daily wage earners worked 189 days⁴ of the year; weekly wage earners worked three weeks in a month; monthly wage earners worked 12 months in a year; and seasonal wage earners worked one season in a year.

³ There were no earning participants with this type of mental disorder

⁴ As many as 85 % of agricultural labourers in India have only casual work, mostly in connection with harvesting, weeding, and preparation of soil and ploughing. The extent of employment for agricultural labourers varies under different conditions in various parts of the country, but the average labourer works 189 days a year in agricultural work (Planning Commission, 2008).

Discussion & Recommendations

This study focuses specifically on economic outcomes of the BN-NBJK intervention programme because economic considerations are crucial to this specific population. People with mental disorders are susceptible to poverty (Patel and Kleinman, 2003) and within a context of poverty and destitution in rural North India, this sample represents some of the most vulnerable. We felt that a close look at economic outcomes for this cohort of programme participants would yield valuable insights into the economic burden of mental illness in this community, as well as the effectiveness of a multi-sector intervention approach in addressing that burden.

The economic burden of mental illness was quite high for the study participants when they entered the intervention programme. We found that at baseline the participants had spent an average of Rs. 1802 on hospital visits in the previous two months. Given that the average family income was Rs. 13,418, hospital visits represented a sizable expense to people with mental disorders and their families. It is therefore not surprising that 32% of the study participants had to sell assets to pay for treatment before entering the programme. Factoring in days of work lost due to illness; hours of caregiving that might otherwise be spent earning income; and time and money spent on visits to hospitals and traditional healers, the significant economic burden of mental illness for this sample becomes quickly apparent.

Notably, our findings indicate that the BN-NBJK intervention programme had a positive impact on excess costs and losses associated with mental illness, such as cost of hospital visits, days of work missed due to illness, and hours of caregiving. Excess costs and losses indicators are of great importance when determining economic outcomes for people with mental disorders (Lim et al, 2008). In this way, the results show that BN-NBJK intervention programme has generally addressed those economic difficulties most directly tied to mental illness over a few years time.

Additionally, the number of individuals earning income nearly doubled between baseline and follow up. Of course, positive changes cannot fully be attributed to the intervention programme. However, 70% of those participants who experienced a change in employment status reported that they attributed some or most of the change to the BN-NBJK intervention.

Overall, respondents rated specific interventions quite highly in usefulness and satisfaction. The number of people accessing hospital services jumped considerably from 52 at baseline to 120 at the follow-up assessment. At follow-up, participants were also accessing hospital services at significantly reduced rates.

Annual income did not change significantly. As the Bihar per capita income (CSO, 2008) is nearly the same as the participants' average annual income at follow-up, it is difficult to determine in what way, if any, mental illness impacts income. We can extrapolate that a decrease in number of days of work lost due to illness should yield a higher income; however, this appears not to have significantly impacted the mean annual income for this group of study participants. This shows that the study participants are no better off than other members of their community, but their additional economic burden has been reduced. A longitudinal study would be helpful in assessing any long term impact on family income level. It is also necessary to closely examine potential income gains from vocational training and other poverty reduction programmes in such resource-poor settings.

Not all study participants enjoyed similar levels of improvement in certain areas. For example, participants diagnosed with schizophrenia comprised 35% of the sample—the largest diagnosis group. The annual income for this group actually decreased between baseline and follow-up. Additionally, the change in number of work days lost for this group was much smaller than the other diagnosis groups. While errors due to varying statistical sample sizes across diagnosis groups may account for some of this discrepancy, it is worthy to note that the intervention programme may be more successful for participants with certain diagnoses over others. But this needs further investigation through focused studies.

As individuals with mental disorders represent such a diverse community, further study will help us understand why some participants are succeeding in the programme and others are not. Regular monitoring and evaluation of the programme based upon feedback from different demographic groups will help programme designers and implementers cater to the needs of different populations.

Addressing a cycle of poverty and mental illness presents a daunting task to NGOs working in settings such as Bihar, India. This economic outcome study highlights some of the successes and challenges the BasicNeeds-NBJK partnership faces in its efforts to improve quality of life for some of the most vulnerable in these areas. Based upon our experience conducting this prospective evaluation, we offer the following recommendations to mental health programme implementers and policymakers in similar settings:

- 1) It is important to recognize that people with mental disorders living in impoverished communities are particularly vulnerable and often require additional support outside of purely clinical interventions.
- 2) Excess economic burdens placed upon individuals and families--such as the cost for medical treatment and hospital visits--need to be reduced or eliminated, allowing people with mental disorders to break a cycle of excess poverty and mental illness.
- 3) People with mental disorders need assistance in accessing the same government resources that are available to others within their communities, including poverty reduction programmes.
- 4) As people with mental disorders represent a very diverse community, care must be taken to understand and address the various needs of different diagnosis and demographic groups to ensure success within a programme.

Conclusion

This prospective evaluation shows that participants in a community based mental health intervention programme in a resource-poor setting can show improvement in economic outcomes, particularly those outcomes most closely related to their mental health status. Periodic and rigorous evaluation is necessary to determine the economic impact of mental health interventions on people with mental disorders. As governments and organizations recognize the needs of this vulnerable population and take actions to positively influence the quality of their lives, the burden of poverty and mental illness will be lifted for many more individuals and families.

References

- World Health Organization, 2008. The global burden of disease 2004 update. Geneva: WHO.
- Ustun TB, Ayuso-Mateos JL, Chatterji S, Mathers C, Murray CJL, 2004. Global burden of depressive disorders in the year 2000. *British Journal of Psychiatry*. 184: 386-392.
- Horton R, 2007. Launching a new movement for mental health. *The Lancet*. 370(9590): 806.
- World Health Organization, 2008. Mental Health Gap Action Programme: scaling up care for mental, neurological, and substance use disorders. Geneva: WHO.
- Saraceno B, Barbui C, 1997. Poverty and mental illness. *Can J Psychiatry*. 42:285-290.
- Muntaner C, Eaton WW, Miech R, O'Campo P, 2004. Socioeconomic position and major mental disorders. *Epidemiol Rev*. 26:53–62.
- Patel V, Kleinman A, 2003. Poverty and common mental disorders in developing countries. *Bulletin of the World Health Organization*, 81.
- Raja S, Patranabish RG, Antwi Bekoe T, Deme-der D, Boyce W. Demographic and economic characteristics of people with mental illness: a study in Ghana. Manuscript in Preparation.
- Faris RE, Dunham HW, 1939. Mental disorders in urban areas: an ecological study of schizophrenia and other psychoses. Chicago: The University of Chicago Press.
- Das J, Do QT, Friedman J, McKenzie D, Scott K, 2007. Mental health and poverty in developing countries: revisiting the relationship. *Social Science and Medicine*, 65(3):467-480.
- Corregall J, Lund C, Patel V, Plagerson S, Funk MK, 2008. Poverty and mental illness: fact or fiction? A commentary on Das, Do, Friedman, McKenzie & Scott. *Social Science and Medicine*, 66(9): 2061-2063.
- Insel, Thomas R 2008. Assessing the economic costs of serious mental illness, *American Journal of Psychiatry*, 165(6):663-665.
- Cohen A, Patel V, Thara R, Gureje O, 2007. Questioning an axiom: better prognosis for schizophrenia in the developing world? *Schizophrenia Bulletin*.
- Isaac M, Chand P, Murthy P, 2007. Schizophrenia outcome measures in the wider international community. *British Journal of Psychiatry*, 191: s71-s77.
- Shoba R, Kippen S, Prassana L, Balraj D, Chandrashekar MM. Evaluating economic outcomes of the community-based mental health and development model in Andhra Pradesh, India. Manuscript in Preparation.
- Zanker J, 2008. This need not be: mental illness, recovery and reintegration in resource-poor settings of low-income countries, *Nossal Institute for Global Health, University of Melbourne*, Melbourne. Unpublished.
- World Bank. India country overview 2008. Date accessed: 2 Nov 2008. www.worldbank.org.in
- Ganguli HC, 2000. Epidemiological findings on prevalence of mental disorders in India, *Indian Journal of Psychiatry*, 42 (1):14-20.
- Srinivasa Murthy R, Kishore Kumar KV, Chisholm D, Thomas T, Sekar K, Chandrashekari CR, 2004. Community outreach for untreated schizophrenia in rural India: a follow-up study of symptoms, disabilities, family burden and costs. *Psychol Med*, 35:341-351.
- Thara R, 2004. Twenty-year course of schizophrenia: the madras longitudinal study. *W Can J Psychiatry*. 49(8):564-569.

- Raja S, Kippen S, Mannarath S, Janardhana N. Evaluating economic outcomes of the mental health and development model in Northern Karnataka, India. Manuscript in Preparation.
- Deaton A, Dreze J, 2005. Poverty and inequality in India: a re-examination. In: Sengupta A, Negi A, Basu M. (eds.) *Reflections on the right to development*. New Delhi, Center for Development and Human Rights, pp. 243-275.
- India: state government sponsored health protection programme (Jharkhand). Social security extension initiatives in South Asia, ILO series. Accessed on 2nd December 2008. Available online at <http://www.ilo.org/public/english/region/asro/bangkok/events/sis/download/paper17.pdf>
- Central Statistical Organization, 2008. Economic census. Accessed on 10 Dec 2008. Available at http://www.mospi.nic.in/cso_rept_pubn.htm
- Jha MK, Raghavan V, 2008. TISS report on Bihar disaster. Mumbai: Tata Institute of Social Sciences.
- Gupta I, Mitra A, 2004. Economic growth, health and poverty: an exploratory study for India. *Development Policy Review*, 22(2): 193-206.
- Planning Commission, 2008. Approach to the problem. In: 2nd five year plan. Accessed: 3 Nov 2008. <http://www.planningcommission.gov.in/plans/planrel/fiveyr/2nd/2planch16.html>
- Lim KL, Jacobs P, Ohinmaa A, Schopflocher D, Dewa CS, 2008, A new population-based measure of the economic burden of mental illness in Canada. *Chronic Diseases in Canada*, 28 (3): 92-98.
- Mental health and development: a model in practice, 2008, BasicNeeds, Warwickshire, UK. ISBN: 978-0-9558880-0-7.

Annexure A
Intervention Checklist

Name of PWMI.....

Place (Village / Block / District).....

1. Did you get information about the programme? (BasicNeeds programme) **Yes – 1**
No - 2
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

2. Did the programme staff meet you? Did they offered to help you? **Yes – 1**
No - 2
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

3. Did you attend Mental Health Camp? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

4. Did you attend the Clinic? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

5. Did you get a Diagnosis? Were you told what your problem is or what is the disease you are suffering from? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

6. Were you referred to any other institution / clinic / centre / doctor for treatment of others? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

7. Did you get treatment / medicines? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

8. Did anyone form the organisation visit you at your home? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

9. Did you participate in any Group meetings organised by the organisation? **Yes – 1**
No - 2
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

10. Did the organisation make an assessment of your capacity to do any work or understand any self employment? **Yes – 1** **No - 2**
 - Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

11. Did you get any Vocational training organised from the organisation? **Yes – 1**
No - 2
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
12. Are you a member of any SHGs of the organisation or did they help you get membership in any other SHG in your area? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
13. Do you have membership in any other groups? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
14. Were you helped for Employment/ placement with some other companies or institutions? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
15. Did you get any loan/credit from the organisation? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
16. Were you linked with other NGOs? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
17. Did you receive any help to get/ access govt. facilities like ration card, disability concession, etc **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
18. Did you get counselling? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
19. Did you receive any Education/ career guidance? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
20. Did you get an opportunity for feedback on progress you made during treatment and the problems faced? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit
21. Did you get any Training? **Yes – 1** **No - 2**
- Was it of any benefit? **Yes – 1** **No – 2** **Not Applicable – 3**
 - Explain the benefit

Annexure B
Questionnaire for Economic Assessment⁵

Place (Village, Block, District).....

Date of filling questionnaire (Date, Month, Year).....

1. Statistics of family
 1. Number of members in the family?
 2. Main source of income of family?
 - 1 Daily Labour 2 Agriculture 3 Service / Job 4 Business 5 Agriculture and Labour 6 Other
 3. Average monthly income of family (Indian Rupees).....
2. Name of the person with mental illness.....
 1. Date of Birth Age.....
 2. Sex 1. *Female* 2. *Male*
3. Educational Qualification
 - 1 Never been to school 2 School Dropout (Upto Std 3) 3 School Dropout (Upto Std 7)
 - 7) Matriculation Pass 5 College and Above
4. Marital Status
 - 1 Unmarried 2 Married 3 Divorced 4 Widow / Widower
5. Whom do you stay with
 - 1 Alone 2 With Husband / Wife 3 With Husband / Wife and children
 - 4 With father/ mother / relativ 5 Other.....
6. Had you ever worked? 0 No 1 Yes
7. How best you are presently engaged?

1 Unemployed (Don't have capacity / ability to work)	2 Unemployed (Have capacity / ability to work)
3 Household work (Part time)	4 Household work (Full time)
5 Working but without monetary benefit	6 Service / Job / Business (Full time)
7 Service / Job / Business (Part time)	8 Studying

8. If your job status has changed since you began the programme, how much do you attribute this change to your involvement in the programme?

- 1 No change/ not at all 2 A little 3 Some 4 Most 5 All

9. If you are involved in any income generation activity (If not the go straight to Question no. 9)

What is the work you are involved in?

How much you from that?

Earn the above amount in 1 Daily 2 Weekly 3 Monthly 4 In one season

If your income has changed since you began the programme, how much do you attribute this change to your involvement in the programme?

- 1 No change/ not at all 2 A little 3 Some 4 Most 5 All

Do you had to stop your work due to illness? 0 No 1 Yes

If yes, then for how many days in last one month?

10. Since you entered the BasicNeeds programme have you had contact with any services other than BN like traditional healing, faith based healing, etc? 0 No 1 Yes

If yes, then what was the type of treatment and where?

- How many times did you meet?.....
- Each time for how many minutes?
- How much amount did you spend each time?
- Did you are required to take any other person with you? 0 No 1 Yes
- How much amount did you spent in travelling to that place?
- How much time (hours) it takes you to reach that place?
- How much time (minutes) you had to wait to consult the person?

⁵ The highlighted questions were not included in the pre-intervention interviews.

11. Since entering the BasicNeeds India's programme, how much do you/your family spend on travel to the programme (in Rs.)?.....

12. How long does it take you to get to the programme site (in minutes)?.....

13. In **last two months**, did you took help from any organization or visited any hospital / institution?

0 No 1 Yes

If yes, then

- Name of the Hospital / Institution / Organization.....
- Place.....
- How many times did you go there
- What the distance of that place from your house (KM)
- Were you required to take anybody with you? 0 No 1 Yes
- How much you spent in travelling?
- And what other types of expenses (types and amount) you had to meet?
- Did you go to the same place each time? 0 No 1 Yes
- Were you admitted for some days? 0 No 1 Yes
- If yes, then for how many days?
- How much did you spend on medicines each month?
- How much did you pay the doctor as consultation fee?

14. Type of illness.....

15. Source (diagnosis by), if any.....

16. Severity of illness.....

17. Details of medicines taken in **last two months**

Name of medicine	Dosage (mg)	How many tablets a d	How many days in last 2 months
Example: Valox	200 mg	3 times	60 days
1.			
2.			

18. In **last two months**, did you take help from any of carers in performing any activity of yours

Type of activity which was helped	Relationship with the carer		How many hours in a week (approx)	
	Carer 1	Carer 2	Carer 1	Carer 2

19. In **last two months**, did any of the above carer has to leave their job / work and stay at home to take your care?
0 No 1 Yes

If yes, then

Carer 1 - No of Days..... Type of Work / job he / she had to stop(Fill in code from below)
Carer 2 - No of Days..... Type of Work / job he / she had to stop(Fill in code from below)

[CODE - 1 Household work 2 Labour / Agriculture 3 Office Job / Salaried job / Business]

20. If this has changed since you began the programme, how much do you attribute this change to your involvement in the programme?

1 No change/ not at all 2 A little 3 Some 4 Most 5 All

21. In **last two months** did your family has to sell any item / property or took loan to meet your treatment costs?

0 No 1 Yes

If yes, then what was the cost of sold item / property or loan amount (Rupees)

22. In the **last 2 months**, have you been visited by any NGO worker? 0 No 1 Yes

If yes, how many times?.....

23. Remarks.....