

Sustainable community mental health services: a description and review of an integrated care model in Uttar Pradesh, India

Abstract

Background

Delivering community mental health services in low resource areas in India is a challenge. When such services are delivered through technical and financial support to partner organizations working within the community, the continuity of such programs beyond the funding period is an important consideration, and one that has not been adequately studied.

Mental health services were integrated into the community-based primary health programs of Ramakrishna Mission, Varanasi (RKM) as part of the Jan Man Swasthya Program (JMSP). The program was delivered with JMSP support for three and a half years till June 2017, when funding ended. From then onwards, mental health services continue to be delivered till date in a sustainable manner.

Aim

We present data on the community mental health program that was delivered during the 3.5 year JMSP period. We then discuss the principles of sustainability of such programs with data from the subsequent two year period.

Materials and method

The program identified and treated persons with mental illness in the Common Mental Disorder (CMD) and Severe Mental Disorder (SMD) categories. These patients were offered pharmacological and psychosocial interventions, along with community-based interventions. The enrollments and outcomes over the JMSP period and subsequent sustained period were analyzed. The process factors underlying these sustainability outcomes were described.

Results

288 patients with CMD and 166 patients with SMD were enrolled in the JMSP period. In the first year of the sustained period, 168 patients with CMD and 126 patients with SMD were treated. In the second year of the sustained period, 292 patients with CMD and 137 patients with SMD were treated. Program fidelity was maintained over most activities. The primary care doctors demonstrated competence in the desired level of diagnostic and pharmacotherapeutic skills. The Master Trainers and Intervention Facilitators could not only retain their knowledge and skills but could pass it on to the new comers. The organization went ahead and invested in creating training manuals, flip charts, pamphlets and videos to further sustain and scale the program. Program adaptation occurred through the introduction of telemedicine, and shift to electronic health record. Organization specific factors were identified that contributed to the sustainability of the program.

Conclusion

This paper describes a sustainable community mental health program delivering services integrated with primary health care in eastern Uttar Pradesh. Over a two-year continued period, the program demonstrated sustained benefits to clients, as well as program fidelity and adaptation. The organizational ethos, leadership and continuity of the team, the good fit between the program and the organizations' mission, and the institutionalization of training and funding were identified as key contributors to the

program's sustainability. This experience can contribute towards attaining similar outcomes both in new community mental health programs, as well as in the public NMHP.

Key words: Community mental health, integrated care, sustainability

Introduction

Mental disorders are an important cause of health loss and disease burden. Depressive disorders are the single largest contributor to non-fatal health loss, accounting for 7.5% of all Years lived with Disability and affecting 4.4% of the global population. On these same measures, anxiety disorders are the sixth largest contributor.¹

Two recent surveys offer an Indian perspective on the public health importance of mental disorders. These multisite studies have estimated the prevalence of psychiatric disorders, and their treatment gap. The prevalence and treatment gap for common mental disorders - anxiety, mood and substance disorders- was reported for eight of the 11 Indian sites covered by the World Mental Health Survey.² The 12 month prevalence of any common mental disorder was 5.52%. The treatment gap was estimated at 95%.

The National Mental health Survey 2015-16 (NMHS) was conducted in 12 states of India.³ Findings from the state of Uttar Pradesh showed a current and lifetime prevalence of 'any mental morbidity' (excluding tobacco use disorders) of 6.08% and 7.97% respectively.⁴ The current prevalence of Common Mental Disorders (CMD) was 6.25% in males and 5.55% in females. The corresponding figures for Severe Mental Disorders (SMD) were 0.45% and 0.23%. The overall treatment gap was 86.7% for CMD and 75% for SMD.

When these prevalence and treatment gap numbers are looked at in the context of the marked shortage of mental health professionals^{5,6}, it is clear that new models of community mental health need to be developed and implemented. Evidence based treatment models for providing community based care for mental disorders do exist, and have been tested in India at small scale.⁷ Organizations and professionals with expertise in designing and implementing such programs typically do not have a presence in low resource areas, which are mostly in remote and underserved regions. One way by which their expertise is

channeled into these areas is through projects implemented in partnership with organizations that are already delivering other health services in those regions.

The JMSP was developed as an attempt to translate these tested treatment models into catchment area based community mental health services in diverse real life settings. The aims of the program were, firstly, to reduce the treatment gap for people with selected mental disorders, and, secondly, to address the systemic challenges faced in implementing sustainable mental health interventions.

Sustainability is an important consideration because the support provided by these projects to the partner organization is usually time bound. The expectation is that the skills transfer and linkage development that happens within the time period of the project will be sufficient to ensure the sustainability of the services by the partner after the project ends, and the support ceases.

Ramakrishna Mission Home of Service (RKM) at Varanasi was one of the six organizations where JMSP was implemented. RKM has been delivering community based health services in 9 village cluster of Mirzapur district in Uttar Pradesh for the last 13 years. This paper describes the integrated care model that developed during the JMSP period, and that demonstrated sustainability after financial, technical and secretariat support ended in June 2017.

Description of the program

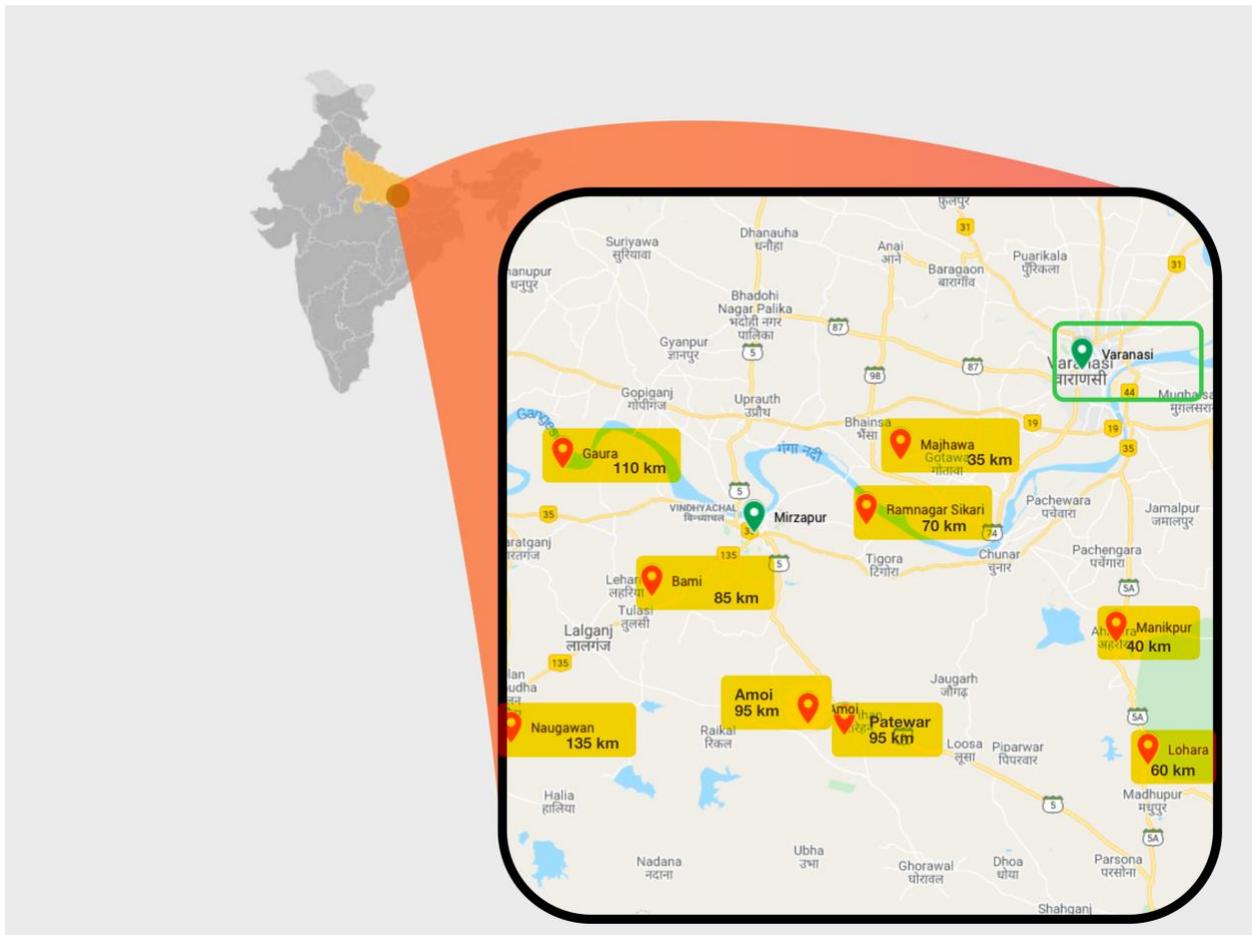
Jan Man Swasthya Pariyojana (JMSP)

JMSP focused on the treatment needs of people with Common Mental disorders (CMD), Severe Mental Disorders (SMD) and convulsive epilepsy. CMD refers to depression (excluding severe depression with psychotic features), anxiety, and mixed anxiety and depression. SMD refers to schizophrenia, bipolar disorders and other psychoses. Substance abuse disorders were not included in the JMSP.

Sites of JMSP

Of the other five sites besides RKM, two were in Maharashtra, two in Assam and one in Jharkhand. Parivartan Trust, based in Satara, Maharashtra was designated as the Secretariat for the JMSP, in addition to its role as a partner organization. All the sites were rural, though they varied widely in terms of developmental and health status indicators. While the Maharashtra sites ranked high and the Assam sites had intermediate indicators, RKM along with the Jharkhand site were severely disadvantaged across a range of social and health system indicators, with a poor state of public health facilities and no public or private mental health service. Satara was the only site with an active District Mental Health program (DMHP).

The RKM site



The RKM has been providing health care services through its village medical camps in 9 village clusters spread over 7 blocks of Mirzapur and Sonbhadra districts since 2006. These villages range from 40 to 130 km from RKM, Varanasi. The total population covered is around 70,000, with most people engaged in labour and agriculture. The sex ratio is 903 females/1000 males. The literacy rate is 70% in men and 30% in women. 40% of the population are Below Poverty Line. 8% are Muslim, and a little over a quarter are from the Scheduled Castes. No psychiatric facility exists in the area in the government or private sector. Patients with mental health problems are therefore forced to go to Allahabad or Buxar (50-120 km) for treatment.

The health care services of RKM are provided through a 3-tier system, with the physician based in the mobile unit, the CHW providing door-to-door coverage, and the Middle Level Team (MLT) of around 11-18 members working as physician substitutes, working for healthy behaviour and trainers of CHWs and Trained Birth Attendants thus providing the bulwark of program.

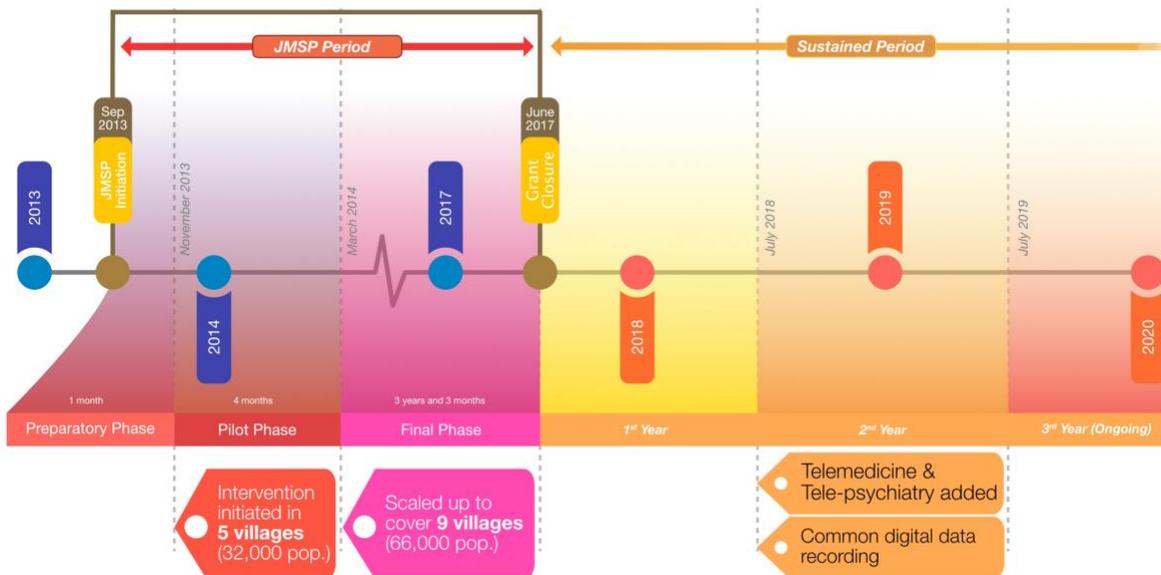
Primary health care, especially focusing on mother and child health, is delivered from fully equipped mobile medical units. Each village is visited once a week. On every visit, 120-200 patients attend the OPD. The CHW and MLT conduct door to door visits, and also conduct multimedia-based health education programs.

The other activities include:

- Food supplementation for pregnant and lactating women and malnourished children.
- Child-friendly schools in 5 villages.
- Rights based approach to community health by empowering rural women.
- Adolescent Health Services
- Early detection and intervention in cases of disability
- Early childhood health and education services

Material and methods

Timeline of the program



The details of the timeline are presented in Appendix I. Here we present details of the first two years of the sustained period.

Sustained period: July 2017 till date.

Mental health services are ongoing, integrated at all levels with the other health care services. In the first year of sustained period, data recording continued in the JMSP format. From the second year of sustained period, i.e. June 2018 onwards, the program activities and methods have evolved. Telemedicine units have been established in 5 villages, with telepsychiatry as an integrated part of their services. The mobile medical units are continuing their services as before. Simultaneously clinical and process data recording for both mobile medical units and telemedicine units has transitioned to a common digital platform that can be used both online and offline.

The intervention delivery team: characteristics at RKM site (details in Appendix II)

	JMSP template	RKM site
Community Health Worker (CHW)	Number:1/12,000 population	More in number. Besides mental health also capable of recognizing other physical ailments and conditions. Also involved in all other RKM projects.
	<i>Role: Both identification and frontline clinical care</i>	Mostly identification of all JMSP patients and competent enough to provide clinical care to epilepsy patients such as First aid and Adherence management for SMD and EPI patients.
Intervention Facilitator (IF)	All received training as Master Trainers (MT).	Only one person trained as Master Trainer (MT) in all the sessions. Rest of IF team trained by this MT, Mentor and Project Head but only 3 MTs were available to the project for its entire duration. 5 others were also trained as MT.
	<i>Role: -Supervision of CHW. -Clinical care of patients and families.</i>	<i>In addition:</i> Competent to detect other physical symptoms related to mental illness -Competent to detect mental illness related symptoms during other physical illness. -Competent to intervene for both types of illness. - <i>Clinical care duties assigned to the CHW in the template.</i> - <i>Delivery of all other RKM projects.</i>
Primary care doctor	The PHC doctor	In-house doctor (no PHCs present)
	<i>Role: primary medical inputs.</i>	<i>In addition: -Fulfilled clinical role of psychiatrist under supervision of mentor.</i>
Psychiatrist	Clinical: Expert inputs in managing SMD and complex cases of CMD. Training and supervision of entire team.	No local psychiatrist, so clinical role fulfilled by in-house doctor. Training and supervision of team by Mentor and Project Head.

Diagnosis

SMD was diagnosed by MT and Doctors based on the characteristic symptoms and associated dysfunction. All referred persons were administered the General Health Questionnaire (GHQ). CMD was diagnosed when the score on GHQ was more than or equal to 6, and the symptoms of anxiety and/or depression were present. The diagnosis and management plan were reviewed with mentor during his field visits.

Intervention

Individual interventions were provided in a stepped care manner, with people receiving interventions based on their level of need.⁸ Structured guides for each disorder were developed to provide a uniform intervention, and also help in effective supervision. The stepped care intervention at RKM site was delivered as follows:

	Step 1	Step 2	Step 3
Needs based	Mostly met needs	Some unmet needs	Several and complex needs
Who delivers it	CHW + IF	CHW + IF (under MT supervision) + Doctor	As in Step 2 + Doctor, under Mentors' supervision
Content of the intervention	Basic counseling	Step 1 + medications	As in step 2. Counseling and medicines under Mentor's guidance.

Definitions of outcomes:

Disengaged: no active session with patient for consecutive 2-4 weeks.

Planned discharge: patient is symptomatically stable, and a mutually agreed post-discharge plan is prepared.

Unplanned discharge: patient is not stable, and the family/patient are asking for discharge OR if the patient is not traceable, not engaging or persistently in the disengaged category for more than 3 months.

Results

I: JMSP period (01 November 2013 till 30 June 2017).

Table 1: Total patients enrolled, and intervention status (as % of total enrolled).

	Total enrolled	No longer on treatment			On treatment as on 30 June 2017
		Planned discharge	Unplanned discharge	Disengaged	
CMD	288 (32% Males)	65 (22.5%)	42 (14.6%)	55 (19.1%)	126 (43.8%)
SMD	166 (73% Males)	12 (7.2%)	16 (9.6%)	61 (36.7%)	77 (46.4%)

More than two-thirds of CMD patients enrolled were women. In SMD enrollments, the opposite held true; almost three quarters were men. Around 45% (CMD n=126, SMD n=77) in both categories remained on treatment at the end of the JMSP period. However, the status of those patients who did not remain on treatment differed in these two categories. CMD patients were more likely to have left by receiving a discharge, planned or unplanned. SMD patients were more likely to have left by disengaging from the program.

Table 2: Intervention-related and supervision-related contacts per patient per year: CMD

	Intervention related				Supervision related		
	CHW	MT/IF	Doctor	Psychiatrist	MT	Doctor	Psychiatrist
July 2015-June 2016	3.7	2.1	1.9	0.07	0.8	1.6	0.3
July 2016-June 2017	6.6	3.8	3.4	0.2	1.4	1.7	0.6
Total contacts per patient over 2 yrs	10.3	5.9	5.3	0.27	2.2	3.3	0.9

(no. of pts on treatment on Dec 2015=160). (no. of pts on treatment on Dec 2016=124)

Table 3: Intervention-related and supervision-related contacts per patient per year: SMD

	Intervention related				Supervision related		
	CHW	MT/IF	Doctor	Psychiatrist	MT	Doctor	Psychiatrist
July 2015-June 2016	8.3	4.2	3.4	0.2	1.9	3.0	0.5
July 2016-June 2017	8.6	7.1	8.9	0.5	1.9	2.0	1.0
Total contacts per patient over 2 yrs	16.9	11.3	12.3	0.7	3.8	5	1.5

(no. of pts on treatment on Dec 2015=85). (no. of pts on treatment on Dec 2016=72)

Table 4: Total intervention related contacts per patient over 2 years

	Psychosocial (CHW + MT/IF)	Medical (Doctor + psychiatrist)
CMD	16.2	5.57
SMD	28.2	13

In CMD patients, the emphasis was on psychosocial interventions delivered by CHW and MT/IF, which were significantly more frequent than the medical interventions by the doctor and psychiatrist. The SMD patients have more complex needs, and all are on medication. This reflects in the higher frequency of intervention related contacts by both the psychosocial and medical team members, when compared to CMD patients. The more challenging nature of SMD is also reflected in a higher intensity of supervision related contacts made by MT, doctor and psychiatrist for SMD (10.3 contacts per patient) as compared to CMD patients (6.4 contacts per patient).

II: Sustained period: 01 July 2017 onwards

Table 5: Enrolment of new patients

	CMD	SMD
JMSP 1st year-2014	143	37
JMSP 2nd year- 2015	78	66
JMSP 3rd year- 2016	52	46
JMSP 6 months-2017	15	17
Sustained period 1st year	42	49

(forecast from 2015 to 2017 for sustained period: CMD: mean of 6 & upper limit of 42.9, SMD: mean of 17 with upper limit of 76.2)

Table 6: Total CMD enrolled, and intervention status: Sustained period, first year (July 2017 – June 2018)

		Planned discharge	Unplanned discharge	Disengaged	Currently on treatment
On treatment as on June 30, 2017 ('old' patients)	126 (25.4% Males)	1 (0.8%)	14 (11.1%)	43 (34.1%)	68 (54.0%)
New enrollments in 1st year sustained period	42 (16.7% Males)	0	0	17(40.5%)	25(59.5%)

Table 7: Total SMD enrolled, and intervention status: Sustained period, first year (July 2017 to June 2018)

		Planned discharge	Unplanned discharge	Disengaged	Currently on treatment
On treatment as on June 30, 2017 ('old' patients)	77 (71.4% Males)	0	0	24 (31.2%)	53 (68.8%)
New enrollments in 1st year sustained period	49 (69.4% Males)	0	0	26(53.1%)	23(46.9%)

Table 8: Comparing outcomes between JMSP and Sustained Phase

	JMSP Period		Sustained Period		χ^2
	Enrolled	On treatment*	Enrolled	On treatment*	
CMD	288	126 (43.81%)	42	25 (59.1%)	3.67 $p=0.05$
SMD	166	77 (46.41%)	49	23(46.91%)	0.004 $p=0.94$

(*Note: On treatment refers to number of patients remaining on treatment at the end of the period)

Table 9: Total number of patients treated per year

	CMD	SMD
Sustained period, 1 st year	168	126
Sustained period, 2 nd year	292	137

The total number of patients treated in a year is the sum of the number of ‘old’ patients (those who continued to be on treatment at the end of the previous year) and the number of new patients who are enrolled in that year. Table 9 shows the total number of patients treated in the two years of sustained period.

What needs to be particularly noted regarding the outcomes during this period of July 2017 to June 2018 is that 49 new cases of SMD were enrolled out of which 11 got well enough to undertake the following work. 5 of these 11 can independently look after themselves and 6 of them are earning their livelihood on their own.

OF the 40 SMD from previous years all of them are continuing their work along with taking their medicines regularly. Table 10: Distribution of patients: Sustained period, second year (July 2018 - June 2019)

	CMD	SMD
Tele-Medicine Unit	226	14
Mobile Medical Unit	66	123

In June 2018, 5 Tele-Medicine Units were initiated, in addition to the ongoing services at the Mobile Medical Units. Also, data recording shifted to a digital format. Table 10 shows the CMD and SMD patients treated at both these units.

Discussion

Sustainability

Sustainability is the continued use of program components and activities beyond their initial funding period for the continued achievement of desirable program and population outcomes.⁹ In addition to tracking sustainability outcomes, it is important to assess the characteristics of a program and its parent organization that lead to program sustainability. These process factors are related to keeping interventions alive after their initial funding.¹⁰ These process factors have also been discussed as the ‘sustainability capacity’ of a program.¹¹

Sustainability studies on community mental health programs in India are scarce. One study reported the follow up of such a program in Tamil Nadu that was conducted six years after project termination.¹² During the 10 years that the program ran, significant progress had been made in clinical services, networking with PHCs and referral centers, and rehabilitation. The follow up study found that most of these gains had been lost within a year of the termination of the project.

We now discuss our program in terms of six variables that contribute to sustainability outcomes, and process factors associated with these variables. The variables are summarized below:

Sustainability	1.	<i>Continued benefits for clients.</i>
	2.	Continuation of program activities <ul style="list-style-type: none">i. Program fidelityii. Program adaptationiii. Program evaluation
	3.	Maintaining new organizational practices and policies <ul style="list-style-type: none">i. Good fitii. Organizational capacityiii. Belief of the program’s key staff
	4.	Maintaining community level partnerships
	5.	Sustained attention to the issue. <ul style="list-style-type: none">i. Communicationsii. Political support

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| | <ol style="list-style-type: none">6. Obtaining financial resources<ol style="list-style-type: none">i. Institutionalizationii. Beyond funding stability |
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1. Continued benefits for clients.

During the 3.5 year JMSP period, 288 patients with CMD, and 166 patients with SMD had been enrolled. Around 45% of the patients in both categories (126 and 77 respectively) were on ongoing treatment at the end of this period and continued to be on treatment as 'old' patients in the sustained period, 1st year.(Table 1).

Sustained period, 1st year

Over the 1st year sustained period, 42 new patients with CMD and 49 new patients with SMD were enrolled (Table 5). This follows the expected trend from the number of new CMD and SMD patients enrolled in the last 2.5 years of the JMSP period.

60% (n =25) of these new CMD patients, and 47% (n=23) of these new SMD patients, remained on treatment at the end of the 1st year sustained period (Table 8). The percentage of new patients that continued to be on treatment showed no significant change in the sustained period compared to JMSP period, implying effective patient engagement in the sustained period.

Of the old patients, 54% (n=68) of the 126 old patients of CMD, and 69% (n=53) of the 77 old patients of SMD, continued to be on treatment at the end of 1 year of the sustained period (Table 6, Table 7)

In those patients who did *not* remain on treatment, most were in the disengaged category; there were no discharges, planned or unplanned. This was true for both old and new patients, and for both CMD and SMD.

We can conclude that the intervention delivery processes remained effective for the patients who were benefiting from them. However, the processes to respond to the patients who improved completely (leading to planned discharge) was not well documented on the software in a retrievable form and who did not improve at all (leading to unplanned discharge) was not sustained.

Sustained period, 2nd year

The detailed analysis of the integrated care services after the introduction of tele-psychiatry and transition to Electronic Health Record, both of which happened at the beginning of the 2nd year of sustained period, will be presented separately. As shown in Table 9, a total of 292 CMD and 137 SMD patients were treated in the 2nd year sustained period. When this is compared with the total number of patients seen in the 1st year sustained period, the SMD numbers are similar, while the CMD numbers are notably higher in the 2nd year. This increase in the number of CMD patients is entirely attributable to increased detection of CMD at the Tele-Medicine Units (Table 8).

The above data clearly demonstrates that the service is continuing to benefit its clients into the 1st and 2nd year sustained period.

2. Continuation of program activities

i. Program fidelity

Activities of the original program that have continued are:

- Identification and follow up of patients by door-to-door visits of CHW
- Intervention and supervision related activities by MT and Doctors
- Community engagement on mental health issues
- Training and supervision of the team by mentor

Activities that have significantly diminished are:

- Gathering and maintaining process and outcome data

Even with the inbuilt supports of the JMSP program, it took more than a year for the data gathering and reporting systems to fall into place. For example, data on intervention related and supervision related contacts were available in a meaningful form only after mid-2015 (Table 2 &3). Throughout the program, data management remained a difficult task. After the JMSP period, it has proved increasingly difficult to sustain data gathering and reporting in its proper quality. The implications of this difficulty for desirable activities such as program evaluation, and dissemination of program outcomes, are obvious.

- Taking detailed case history and delivering psychosocial interventions in a structured and supervised manner.

ii. These activities are still considered important by the key staff. However, any primary health care work where task substitution takes place is fundamentally dependent on continuous supportive supervision. The quality of supervision and response to the same falters in absence of external continuous monitoring or strong internal ones. In human resource scarce situation this is a very important issue in itself and more so in program sustainability. This will be seen when data of later sustainability period gets published.

Program adaptation

Modification to the program is often desirable, especially if changes reflect additions to the interventions rather than subtractions from it. In the second year of the sustained period, telemedicine with telepsychiatry, and digital data recording, was introduced.

iii. Program evaluation: monitoring the process and outcome data of program activities.

External assessment was conducted at the RKM site as part of JMSP protocol in February 2016.¹³

In the sustained period, while internal reviews are regularly performed, the results have not been documented. No External assessment has been conducted.

3. Maintaining new organizational practices, procedures, and policies that were started during program implementation.

i. Is there a good fit between the intervention and the partners' mission and operating routines?

The understanding of wellbeing as having physical, mental, social and spiritual dimensions is central to RKM thought. In addition, its activities are based on Swami Vivekananda's mission to serve the needy. The health programs of RKM were already shaped by these influences, making it easier for the JMSP mental health components to integrate smoothly with the existing programs and routines. As the External Assessment Team noted, 'It is also necessary to recognize that the location of the project within the Ramakrishna Mission brings a certain element of selfless service on the part of project staff'.¹³

ii. Organizational capacity: does the organization have the resources need to effectively manage the program?

The core team - Program coordinator, Master Trainer, and key Intervention Facilitators – were drawn from a committed and stable team working for many years under the Project Head in the pre-existing RKM health programs. The resulting continuity of key members, with a shared outlook, was hugely important to successfully implementing the JMSP. The core team has remained unchanged through the sustained period too. The role of the doctors is critical, and will be discussed later in relation to the role of the specialist. The two doctors and the specialist (psychiatrist/ mentor) too have remained unchanged through the JMSP and sustained period.

iii. Does the program's key staff believe it to be beneficial?

The preventive and holistic approach to health is intrinsic to the RKM programs. The JMSP reinforced this approach by introducing the organization to the tools and techniques of evidence-based community mental health care. In particular, two features, the emphasis on psychosocial inputs, and the encouragement of integrated care, were deeply assimilated because of the team and program characteristics at RKM. Integrated care demands a flexible workforce of members who can transcend traditional professional disciplines and power dynamics.¹⁴ .To a great extent, the RKM site and team did share these characteristics.

The JMSP was seen by the key staff as an organic development of the RKM programs, and it was implemented with a high intent to continue. Overall, all the programs of RKM are now influenced by a mental health perspective.

iv. One of the critical component of program sustainability is the availability of competent workers willing to engage themselves in program activities for a remuneration. In India and western UP this aspect is very challenging especially in relationship to health programs particularly JMSP. India produces very few clinical psychologist, counsellors and psycho-social-medical interventionist. And the few who qualify lack the competency to engage in professional work in any meaningful way. Almost all of these are present only in metropolis or big cities.

The RKM team having recognized this fact from the very beginning put in intense effort in building in house processes and competency of training new-comers and continuing education of old timers. Secondly it mobilized substantial resources to create training manuals, booklets, pamphlets and videos in Hindi which not only contributes substantially to sustainability but forms the bedrock of scalability.

4. Maintaining community level partnerships

Community engagement activities:¹⁵

Mental health education camps were conducted once a month in every village. Role plays were organized elucidating the symptoms of CMD, SMD and epilepsy. These activities emphasized the importance of adhering to treatment, and sensitized people towards persons with mental disorders, both as caregivers and as a community. During the Empowering Rural Women meetings, similar themes were addressed, with a focus on mental health issues faced by women.

235 such community engagement sessions were conducted. The number of people reached was 34,260. These community engagement activities, and the door-to-door reach of the program, were built upon community partnerships nurtured over many years. These partnerships remain robust in the sustained period, and community engagement on health related topics continue, though the mental health-specific component has diminished. However, what is noteworthy is that the organization has made intense efforts in mobilizing resources to build up at least 2 products on community awareness, healthy behavior and engagement in mental health engagement.

5. Sustained attention to the issue.

A valued outcome of program implementation is heightened issue salience. This leads to a change in public perception of the issues, and to increased attention to the issue by policymakers.

i. Communications: the strategic dissemination of program outcomes and activities with stakeholders, decision makers, and the public.

ii. Political support: the internal and external political environment.

Related to this is the social, policy and financial environment in which the organization functions.

6. Obtaining financial resources

i. Institutionalization

Funding is necessary for sustainability. One source is continued external financial support via grants or donors. Another funding stream is the institutionalization of the intervention, where the new activities are incorporated into the organizations' ongoing budget and operating procedures.¹⁶The term 'institutionalization' can also reflect a larger set of accommodating changes in organizational practice to help implement, and then sustain, a new health program. The greater this accommodating change within the organization in response to the implementation an innovation, the higher the likelihood that the innovation will persist.

ii. Beyond funding stability

The ability to make long-term plans based on a stable funding environment is an important contributor to sustainability, but not the only one. Similarly, institutionalization is not the only path to achieving sustainability. The characteristics of the intervention, the organizational setting, and the community environment are all relevant to sustainability. In an era of continual change, a stronger emphasis on the political and economic environment as the context of long-term sustainability may be necessary.

The primary care doctor and the specialist

The primary care doctor was ideally to be a government doctor at the PHC because JMSP was meant to be linked to existing government services. Their training was to be done by the mentor/psychiatrist. As the Grant Closure Report notes, 'Across sites, there was a wide variation in uptake of this training, and this did not translate into uniform collaboration by doctors with JMSP. There was better uptake when the doctor was in-house'.⁸

At RKM site, where there are no PHCs, the two in-house doctors provided support to the JMSP. The Mentor/Psychiatrist was responsible for their training through regular visits. On every visit, training of primary care doctor and MLT, and clinical review of patients, was done hands-on in the field sites. Each visit was for 3 days, with one day each in two field sites, and review meetings and classes in the office. In the first 16 months till December 2014, there were 10 such visits. Subsequently, visits are once every 2-3 months. At all other times, he is available on the phone. The intervention related and supervision related contacts per patient per year for the JMSP period is shown in Tables 2 & 3. In addition to this, the team has also received once-a-week training and supervision from the Project Head, a pediatrician by training, with extensive experience in community health and mental health.

The doctors have developed competency in the use of psychotropic medicines in a step-by-step manner. First, when basic diagnoses were being discussed, they learnt to understand the organic/substance induced/functional distinctions. In SMD, they learnt to differentiate bipolar disorder from schizophrenia. In CMD, they learnt the endogenous/reactive distinction. They could take decisions on who should receive counseling alone, and who needed medicines in addition. Then, they learnt how to match medicines to the diagnosed condition. At present, they are able to make accurate diagnosis (within this framework), select appropriate drugs (or decide not to medicate), and identify and manage side effects.

The role of psychosocial and community interventions was as important as the medical treatment. The management of CMD patients involved considerably more psychosocial contacts than medical ones. For SMD patients, both kinds of contacts were delivered at a higher intensity (Table 4)

Thus, with regard to the primary care doctor and the specialist, our program demonstrates that:

1. When provided with appropriate training, support and supervision, the primary care doctor is capable of performing the mental health care roles required for a community mental health service in underserved regions.
2. Such a program can be implemented and sustained without a fulltime local specialist. The training, support and supervision by mental health professionals can be effectively performed by regular visits by the expert, supplemented by availability over the phone or through telemedicine.
3. It is possible to deliver effective psychosocial inputs through non-medical team members. Besides the benefits to patients, an emphasis on these interventions helps the whole team to understand mental health in a broader manner than just involving diagnosis and medication. Developing integrated services in this manner is challenging for the organization and each of the team members, but, as shown here, it is both achievable and beneficial.

Conclusion

A structured mental health initiative was introduced in an organization providing community-based health services. The enhanced organizational capacity and the demonstration of utility contributed to the decision to continue and strengthen the program.

Over the two-year period described in this paper, the program has shown continued benefits to its clients. There has been an internal diffusion of a mental health perspective into the other health programs. The program has evolved, with the introduction of Electronic Health Record and Telemedicine.

The factors contributing to the sustainability of this program are the organizational ethos, continuity of the team, leadership, the good fit between the program and the organizations' mission, as well as the institutionalization of man-power development and funding. The experience from this program can inform the development of program characteristics and organizational processes of new programs in order to ensure similar outcomes. This can contribute towards the generalizability of these processes and, in particular, to the development of the public DMHP at a scale.

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Appendix

Appendix I: Timeline of JMSP

Preparatory phase: September 2013

The team was recruited and the first set of training for the Master Trainers (MT) and (CHW) was conducted. The program management systems were set up. A baseline situation analysis was conducted to determine the population level service needs and potential local resources available for mental health care.

Formative phase: October 2013

The team started their initial work with persons with mental illness, family members, local health care providers and other relevant stakeholders with the aim of enhancing local ownership of the program. This information was systematically collected through a survey that helped customize the interventions and operationalize the structure and functioning of the services.¹⁴

Pilot phase: November 2013 – February 2014

The stepped care interventions for CMDs, SMDs and convulsive epilepsy were initiated in 5 villages, with a total population of 32,000. MTs and, in turn, CHWs received additional training. All aspects of documentation, supervision and reporting were rolled out.

Final phase: March 2014 - June 2017.

The interventions were scaled up to cover 9 villages, with a total population of 66,000. Grant closure on 30 June 2017.

Sustained period: July 2017 till date

Appendix II: The template of the Intervention delivery team

The Intervention Facilitators (IFs) provided clinical care in collaboration with the Community Health Workers (CHWs) and the primary care doctor. The Program Coordinator (PC) was the link between the site and the Secretariat. She also supervised and trained the IFs and CHWs.

The CHWs were lay people from the local community. They were responsible for identification, screening and enrollment of patients. They were also meant to provide frontline clinical care to patients and their families such as psychoeducation, adherence management, needs assessment and individual care plan under supervision of IFs. The team was designed to consist of a PC, 1-2 IFs and 3-4 CHWs depending on the population covered by each site, with 1 CHW/ 12,000 population covered.

The primary care doctor was ideally a government doctor at the Primary Health Centre (PHC) because the JMSP was meant to be linked to the existing government services. Their role was to provide primary interventions to persons with CMD and also contribute to the management of SMD and epilepsy depending on their skills and expertise.

Finally, a psychiatrist and a mentor were also part of the team. Their availability and role varied between sites. The role of the psychiatrist was to provide expert input in the management of SMDs, Epilepsy and complex cases of CMD while also providing training and supervision to the entire team.

The JMSP followed a cascade model of training wherein the Secretariat trained the PC and IFs from each site to become 'Master Trainers' (MTs), who, in turn, trained the CHWs at their respective sites. This MT training at Satara was for a total of 318 hours, spread over 53 days of the first 2 years of the JMSP.

Team structure

The unique characteristics of the Mirzapur site led to the development of a team structure somewhat different from the above template.

The PC is the only person to have attended all the MT training at the Secretariat. Two persons recruited as MTs in the preparatory phase left the project soon after the first training at the Secretariat. Effectively, the PC is the only MT.

The CHWs are involved in all the other RKM health care programs along with JMSP. When compared with the template, they are more in number (28-30) for the 66,000 population covered in the final phase, but with less competence. They are able to identify and screen patients efficiently, but could not deliver frontline clinical care at anything more than the most basic level.

The role prescribed in the template for the IF is performed by the MLT. In addition, the MLT delivers the frontline clinical care functions that were originally designed for the CHWs. They also continue with their responsibilities in the other health care programs. The MLT has received training from the PC (MT), the project head, and the mentor. 12-15 members of the MLT are delivering JMSP services in this manner, at any point in time.

There is no functioning PHC in Mirzapur district. The two in-house physicians who have been delivering primary health care at the RKM village medical camps were also entrusted with the responsibilities of the JMSP primary care doctor.

There is no psychiatrist in Mirzapur district. The role of psychiatrist for the site was also performed by the primary care doctor, under the training and supervision of the mentor.