Feasibility testing of a peer support programme for prisoners with common mental disorders and substance use

Thekkumkara, Sreekanth; Jagannathan, Aarti; Muliyala, Krishna Prasad; Joseph, Ambi; Murthy, Pratima

Published in:
Criminal Behaviour and Mental Health

DOI:
10.1002/cbm.2287

Publication date:
2023

Received: 8 August 2022 | Accepted: 16 March 2023

DOI: 10.1002/cbm.2287

ORIGINAL ARTICLE

WILEY

Feasibility testing of a peer support programme for prisoners with common mental disorders and substance use

Sreekanth Thekkumkara[1] | **Aarti Jagannathan**[2] | **Krishna Prasad Muliyala**[3] | **Ambi Joseph**[4] | **Pratima Murthy**[3]

[1]School of Health Sciences, University of Dundee, Dundee, GB

[2]Psychiatric Social Work, NIMHANS, Bengaluru, India

[3]Psychiatry, NIMHANS, Bengaluru, India

[4]MSW, Social Worker, Thiruvananthapuram, Kerala, India

Correspondence

Sreekanth Thekkumkara, School of Health Sciences, University of Dundee, Nethergate, DD1 4HN, Scotland.
Email: sreekanthnairgck@gmail.com

Abstract

Background: The prevalence of mental disorders and substance use among prisoners is high. Convicted prisoners of 'good behaviour' can be part of a peer support system in prisons.

Aim: To evaluate the feasibility of a peer support programme for prisoners with common mental disorders and substance use in prison.

Method: The study used a mixed method research design, with a quasi-experimental approach (single group pre-post without control). It was conducted in two phases: Phase I. Thirty-five peers/convicted prisoners were recruited through advertisements on the prisoners' community radio station. Volunteers with good behaviour reports were given training over 5 days to recognise mental and substance use disorders and provide basic peer support in prison; their attitudes and knowledge were tested before and after the training. Phase II. Feasibility of the peer support programme was tested by (i) recording the number of cases identified and referred, (ii) pre- and post-evaluation of well-being, coping, and symptom severity of those supported and (iii) evaluating qualitatively the experience of the peer supporters and service users.

Results: Thirty-five peer supporters identified 49 cases over 3 months. These cases showed significant improvement in well-being (Z −1.962; p < 0.050) and reduction in symptom severity (Z −1.913; 0.056). There was a significant improvement in the peers supporters' self-esteem from pre- to post-training (t −3.31; p < 0.002), improvement in their benevolence (t −4.37; p < 0.001) and a significant reduction in their negative attitudes to mental illness (Z −3.518; p < 0.001). A thematic model of peer support encompassed self-experienced benefits for the peer supporter, wider recognition of peer supporters in the prison, challenges to this kind of support, experience of training and visions for future work.

Conclusion: The peer support programme was experienced positively by the peer-supporters and supported. Common mental disorders, substance use and suicidality were recognised and appropriately referred. A full-scale evaluation of this promising programme is warranted.

KEYWORDS
feasibility, mental disorder, peer support, prison, prisoners, substance use

1 | INTRODUCTION

Prisoners are among the people in society who are most vulnerable to various communicable and non-communicable diseases (Watson et al., 2004). Among the non-communicable conditions, studies have reported a high prevalence of mental disorders and substance use among prisoners (Fazel et al., 2016). A positive correlation between mental illness and incarceration has been reported (Baranyi et al., 2019).

Interventions for the management of mental health and substance use disorders in prisoners such as motivation enhancement therapy, seeking safety programme, cognitive behaviour therapy, interpersonal therapy, music therapy, acceptance and commitment therapy, cognitive behavioural suicidal prevention therapy, group interpersonal psychotherapy and mindfulness-based relapse prevention intervention have shown positive benefits (Thekkumkara et al., 2022b).

India has a large prison population (Ministry of Home Affairs, 2020), and mental health services in prisons have been highly recommended (Rabiya & Raghavan, 2018). As reported in research studies and government reports, the number of mental health professionals available in correctional settings in India are far below those calculated as necessary (Math et al., 2011; Ministry of Home Affairs, 2020), convicted prisoners considered by the authorities as being of 'good behaviour' may be used to develop a peer support system for identifying need and providing services for various common mental health and substance use-related problems among other prisoners. Evidence-based studies have found that engaging as a peer supporter in prison is associated with positive well-being and also that peer support interventions can positively affect those using this service (South et al., 2014).

There are no peer support training programmes for prisoners in India, therefore our aim was to test the feasibility of a peer support programme for prisoners with common mental and substance use disorders.

2 | METHODS

2.1 | Ethics

The study was reviewed and approved by the Ph.D. Registration No: NIMH: A&E-SA-3674/Ph.D. (PSW-ST) 2018–19: NH, dated 27 March 2019: National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore, India. The study was also registered in the Clinical Trials Registry, India (CTRI): CTRI No: CTRI/2019/06/019498. Permission was obtained from the Department of Prisons and Correctional Services, Government of Karnataka, to conduct the study in Bangalore Central Prison. Data were collected between December 2018 and February 2021. A written informed consent was obtained from each respondent, and permission was obtained from the custodial authority.

2.2 | Study design

We used mixed methods—qualitative and quantitative—research approach and a quasi-experimental design (single group pre-post without control) in two phases: Phase I. Training of peers and Phase II. Feasibility testing of the peer support programme.

2.3 | Study Phase I

Participants in both phases of the study were recruited from the central prison which is located in Bangalore, Karnataka, one of the larger cities in India with a population of 11 million (GOI, 2011). The prison has a capacity of approximately 4400 prisoners, both pre-trial and convicted men and women over 18 years old. It draws on the mixed urban and rural catchment area of Bangalore city.

The prison's community radio station was used to inform potential participants about the training programme and recruitment. Convicted prisoners aged 18–65 years who were participating in various voluntary activities in prison as a part of their (re)habilitation and had been given a positive rating on behaviour and attitude by the mental health team and prison authority were eligible for becoming peer supporters. Participants were recruited from this group by purposive sampling.

The 35 selected participants were provided with training in identifying prisoners with common mental and substance use disorders and suicidality, basic peer support and counselling (Thekkumkara et al., 2022a). Training materials developed for this include descriptions of disorders, screening process and management plans with case illustrations (Thekkumkara et al., 2022a). The training's explicit aim was for the peers to change the knowledge and attitude of prisoners towards mental disorder and substance use, give them training in basic counselling skills and train them to become a peer supporter in prison. In order to explore changes in knowledge, attitudes towards mental illness and self-esteem following training, the participants' community attitude towards mental illness scale (Taylor & Dear, 1981), mental health literacy (Jorm, 2000; Reavley et al., 2014) and the Rosenberg self-esteem scale (Rosenberg, 1965) were administered. A sample vignette with a questionnaire about attitudes and beliefs is provided as an *online supplement*. The training was a structured 5 days programme including pre- and post-assessment. The training was provided to groups of 8–10 prisoners in three sessions (one session per week over 3 weeks). During the COVID-19 pandemic, the training was provided in smaller groups of 4–6 persons for maintaining social distancing and COVID protocol. It took the researcher over 8 weeks to complete the training of 35 prisoners in such batches. The training included didactic lectures, group discussions, group activities and role-play.

2.4 | Phase II

The trained peers identified prisoners with mental illness and substance use disorders through staff referral, self-referral and their own observation of the behaviour of other prisoners. Some of the peers were posted in

the prison hospital, initially to screen new prisoners for identification of mental health and substance use-related problems; this was subsequently stopped during the COVID 19 pandemic. Screening tools, including the Patient Health Questionnaire 9, General Anxiety Disorder 7, (provided in all vernacular languages) and alcohol smoking and substance involvement screening test (ASSIST) were administered by the peer supporters under the supervision of the researcher.

All prisoners thus screened were also administered scales at recruitment by the researcher to assess their symptom severity with a clinical global impression scale (CGI) (Guy, 1976), brief coping scale (Carver, 1997) and Warwick well-being scale (Warwick Medical School, 2015). These prisoners were encouraged to use mental health services and/or referred to the prison mental health team. They were provided with supportive counselling by their trained peers and followed up for 3 months. The researcher maintained a record of the number of cases identified, the number of cases referred, prisoners' symptoms, coping and well-being.

In addition, an in-depth qualitative interview with the peer supporters was conducted by the researcher to understand their experience, the challenges of implementing the programme and for any recommendations for improvements. Further, in-depth qualitative interviews were conducted with the identified cases (prisoners who availed themselves of peer support) to understand the benefits and needs met by the programme. The qualitative interviews were stopped on data saturation. In addition to that, the researcher also maintained observation and field notes during the study process, which were incorporated into the assessment of the feasibility of the intervention. The feasibility of the peer support intervention was examined based on the Bowen's criteria for feasibility studies (Bowen et al., 2009). Bowen's feasibility criteria cover parameters such as acceptability of the intervention, demand for the interventions, implementation, practicality of peer support, adaptation, integration of the intervention in the prison setting, possibility for expanding the model and limited efficacy testing through the quasi-experimental design. These criteria are considered to be the most effective ways of assessing the feasibility of any intervention (Harish et al., 2020; Reddy Annapally et al., 2020).

2.5 | Data analysis

The pre- and post-assessment data about peer supporters' mental health knowledge, attitudes and self-esteem as well as the socio-demographic and clinical data sheets (N = 35) of the identified cases for the peer service were analysed descriptively using SPSS version 2020. The data were assessed for normal distribution using the Shapiro–Wilk test. Inferential statistics (parametric and non-parametric tests of paired samples, t-test, Wilcoxon signed-rank test) were used to analyse the training programme results, such as self-esteem, knowledge and attitude outcome variables. The pre- and post-scores of identified prisoners on well-being, coping and symptom severity were analysed using the Wilcoxon signed-rank test. Qualitative data were analysed using the six-step analysis described by Braun and Clarke (2006). The themes and sub-themes were derived and collated independently by the primary author and reviewed by the co-authors.

3 | RESULTS

3.1 | Phase I: Peer training

A total of 52 men were recruited as potential peer supporters, of whom 44 consented to participate in the training. Nine started but discontinued training due to their lack of interest. Thirty-five participants completed the training. The mean age of the completers was 39.58 years (standard deviation [SD] 8.20), and they had completed 11.82 years (SD 3.35) of education. At the time of participation, on average, they had completed 6.91 (SD 4.07) of their current sentence. Only one of them had any previous counselling experience, but 21 (60%) had already done some voluntary work in the prison.

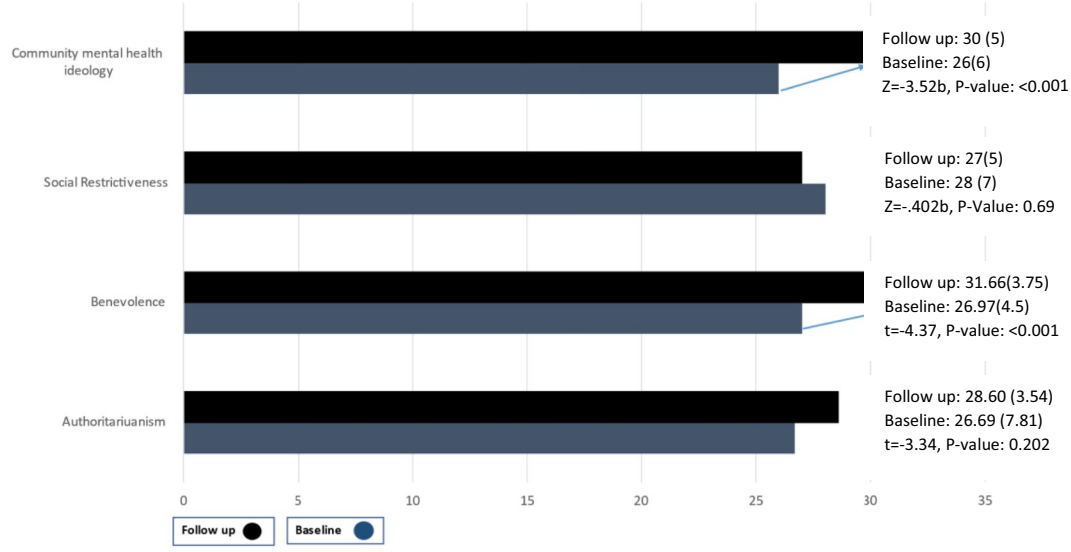
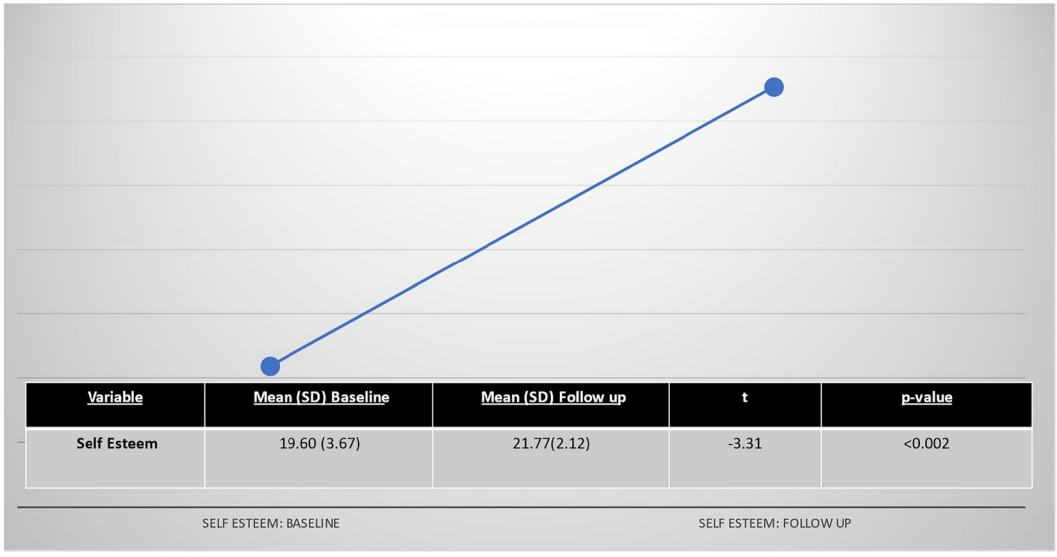


FIGURE 1 **Peer supporters' attitude towards mental illness.**



Variable	Mean (SD) Baseline	Mean (SD) Follow up	t	p-value
Self Esteem	19.60 (3.67)	21.77(2.12)	-3.31	<0.002

FIGURE 2 **Peer supporters' self-esteem.**

Figures 1 and 2 indicate the changes in these peer supporters between starting and finishing training. There was a significant improvement in attitudes towards mental illness, with significantly higher benevolence scores after training (t = −4.37; p < 0.001) and significantly lower mean negative attitude towards mental illness scores (Z; −3.518[b]; p < 0.001). There were no significant changes observed in the domains related to the peer supporters' attitude towards authoritarianism and social restrictiveness.

There was also a significant improvement average self-esteem scores (t = −3.31; p < 0.002; see Figure 2).

Regarding mental health literacy, here ability to identify common mental disorders, at baseline, only (6) of the participants identified the conditions described in the case vignettes. After training, almost all of them correctly identified depression from a vignette (33, 94%). We also found that about twice as many of the men had some accurate

knowledge about the use of medication for the mental disorder after training compared with before (12 [34%] to 24 [69%]). Even before training, about two-thirds of the men (24, 69%) had a view that listening and trying to understand the problem was likely to be helpful at baseline; three more thought so after training (27 [77%]).

The mental health literacy scale showed that training enabled more men to recognise symptoms (pre-training 13 [37%]: post-training 30 [86%]). Regarding the knowledge related to the role of the psychiatrist in managing substance use disorders, there was a change in participants' knowledge from baseline 16 (46%) to 29 (83%) follow-ups. There was also a change in participants' opinions about psychiatric medication; initially, less than half of the participants (16, 46%) thought that it would be helpful for serious mental disorders, but after training, over three-quarters thought they would be (27, 77%). Perhaps of most importance, identification of self-harm and suicide-related behaviours became more likely; only seven (20%) were able to identify them from the case vignette before training, but almost all could do so afterwards 30 (86%). There was a consonant rise in the acceptance of a psychiatrist's role in helping with this (pre- 16, 46%: post- 29, 83%).

3.2 | Phase II: Feasibility of the peer support programme

In the 3 months after training, during the identification that they were asked to conduct, the 35 trained peer supporters, between them, identified and referred 49 fellow prisoners likely to need psychiatric help. Among the 49 cases the peer supporters screened positive, 13 of them were already known to the mental health team and availing treatment (three depression, one anxiety, seven psychosis, one nicotine use, one epilepsy/neurological condition). Among the 36 'new cases' identified by the peer supporters, they documented 12 cases of depression, one of anxiety, two of deliberate self-harm, 14 cases of substance use (prior to the admission to the prison) and seven cases of psychosis. Most of these men refused treatment post-peer referral (n = 21), apparently on grounds of it being stigmatising; they also had poor help-seeking behaviours for treatment and care.

3.3 | Progress of peer identified and referred cases

Among the 15 cases accepting care from the mental health team, only nine consented for pre- and post-assessment of their symptom severity, well-being and coping. Pre- and post-assessment of coping, well-being and symptom severity of the identified cases showed significant improvement in well-being (Z −1.962[b]; p < 0.050) and reduction in symptom severity (Z −1.913[c]; 0.056), as shown in Table 1.

An inter-rater reliability approach was then used to compare the peer supporter and the researcher assessments, the intraclass correlation coefficient (ICC) was determined using ANOVA. The test results show a high ICC between the researcher and peer supporter for PHQ9 (0.71), and ASSIST (0.88); the ICC for GAD 7 (0.59) was found to be moderate.

TABLE 1 Symptom severity, wellbeing and coping in the subgroup of cases identified by the trained peer supporters who agreed to research interviews (N = 9).

Variable	Shapiro–Wilk normality	Median & IQR range	Median & IQR range	*N*	*Z*	Asymp. Sig. (2-tailed)
Wellbeing	**0.242**	**44 (4)**	**47 (9)**	**9**	**−1.962[b]**	**0.050**
Coping	0.451	73 (6)	73 (10)	9	−0.424[b]	0.671
Symptom severity	**0.394**	**4 (3)**	**3 (2)**	**9**	**−1.913[c]**	**0.056**

Note: Bold values indicate the significant improvement in wellbeing and significant reduction in symptom severity. Wilcoxon signed ranks test for the study and the significance were reported based on the negative and positive ranks. b: indicates negative ranks. c: indicates positive rank.

Abbreviation: IQR, interquartile range.

3.3.1 | Qualitative experience of the peer supporters

In-depth semi-structured interviews were completed with 12 peer supporters. No new data items were emerging after eight interviews, so the data reached saturation. Five main themes emerged from the data, as shown with supporting evidence in Tables 2 and 3. These main themes were benefits of being a peer supporter, wider recognition and appreciation of peer supportive interventions in prison, challenges to delivery of these interventions, experiencing the peer supporter's training and visions for ways forward.

Theme 1. The benefits of being a peer supporter: 'This training would improve our self-confidence, and it's all part of the reformation. Whether I have committed the crime is secondary; I am convicted and sent for reformation because of factors. This is all part of our reformation process. More than that, I felt very proud that I could help someone who is in need'. (Mr K, 35 years).

Theme II. Wider recognition of peer supportive interventions in prison: 'I am handling a few mental health awareness sessions on the community radio, and you might have seen that. These sessions helped many prisoners, especially those who use tobacco and smoke. After the session, prisoners used to come and discuss these with us. At least I could identify some of the prisoner's issues and refer them to the hospital'. (Mr K, 39 years).

Theme III. Challenges to the delivery of peer supportive interventions in prison: 'See, many of them are afraid to come to psychiatry side…because in the barrack others (prisoners) would call them many terms such as "mental" "loose" "psycho" and prisoners don't want to identify like that'. (PS 40 years).

Theme IV: Experiencing the peer supporter training: '… it is very common here (mental illness)…it is good that you are provided only basic information which I felt adequate…otherwise it might be difficult to understand to us…' (Mr C, 42 years).

Theme V: Visions of ways forward: 'It requires systemic support and process. We need to sensitise the entire prison about these mental health issues, including the police and others. We can use community radio as a medium, and we have used that. Until we manage that, identification and other issues are reported to be very difficult.' (Mr P, 31 years).

3.3.2 | Qualitative experience of the identified cases (service users)

In-depth semi-structured interviews were completed with five identified cases to understand their experience of availing the mental health services from the peer supporters. The qualitative interviews with peer supporters resulted in the identification of one main theme, as shown with supporting evidence in Table 3. These main themes identified were their subjective satisfaction with the peer support services.

The overarching theme was of *subjective satisfaction*. This included their sense of being cared for, understood and supported by their peers. Further, there were indications of acceptance of peer support intervention when they felt a fellow prisoner could understand their psychosocial problems.

> They understand our problem because they also had a similar experience in their life, I think, so it is easy to make them understand better than anybody.
>
> (Mr S 49 years)

> Sir, I am feeling better now…Initially, when I came, I did not know what to be done or how I would pass this situation and then slowly, I started adjusting to this new environment with the help of him and a lot of other prisoners. He always asks me about how I am doing and any difficulties. I used to feel happy. See, sir, we are coming with lots of issues, and someone helping us is a great thing here.
>
> (Mr M, 29 years)

TABLE 2 Themes and sub-themes from interviews with 12 peer supporters about their experience of the training and their work.

Themes/factors	Sub-theme/sub-factors	Quotes/description
1. Benefits of being a peer supporter	• Sense of satisfaction by the peer supporter • Reformation and peer support • Knowledge	'This training would improve our self-confidence, and it's all part of the Reformation. Whether I have committed the crime is secondary; because of factors, I am convicted and sent for reformation. This is all part of our reformation process. More than that, I felt very proud that I could help someone who is in need'. (Mr K, 35 years) 'After the training, at least I am confident that I can identify these issues and support them for their issue'. (Mr N, 42 years)
2. Wider recognition of peer supportive interventions in prison	• Use of prison community radio for identification and awareness • Rapport initiation and peer support • Care in the prison psychiatry ward • Behavioural observation • Assist in ADL • Management of DSH and suicidality • Emergency care • Peer support for substance use • Recreation and engagement • Medication supervision • Referral service • Peer education and listening support	'I am handling a few sessions of mental health awareness on the community radio, and you might have seen that. These sessions helped many prisoners, especially those who use tobacco and smoke. After the session, prisoners used to come and discuss these with us. At least I could identify some of the prisoner's issues and refer them to the hospital'. (Mr K, 39 years) 'I observe them here approaching prisoners; we need to be very careful. Some of them may not like a stranger interacting with them, or they will have gang members. Initially, we talked to them and offered support. Most of them would not take that offer, we left them, but some of them wanted to solve their issue, I usually speak to them, listen to them, and then I will decide whether they required treatment, or it was just some common issue'. (Mr A, 32 years) 'It includes observing the disturbed cases, especially at night…monitor their behaviour and activity at night'. (Mr S, 40 years) 'Taking care of their hygiene, because some of them will not take a bath or take care of other things…so these cases we would either ask them to do that or we would inform the police inside the hospital to involve'. (Mr G, 37 years) 'We would engage them in different games inside the hospital like carroms, ludo and similar games'. (Mr C, 43 years)

TABLE 2 (Continued)

Themes/factors	Sub-theme/sub-factors	Quotes/description
3. Challenges	• Lack of time to provide peer support • Impact of the COVID 19 pandemic • Challenges in understanding the content of training • Lack of interest of peer supporters • Stigma and poor treatment-seeking behaviour among the prisoners • Power dynamics • The attitude of prisoners towards peer supporters • Lack of skills among peer supporters • Challenges in gaining trust • Challenges in administering the screening tools	'Here, most of them just come and attend; after that, they will not show any interest in any activities'. (Mr AP, 45 years) 'One of the important issues here is that no one wanted to open up about their issues; trust is something most of them lost to each other. Building trust and discussing issues was one of the challenges I felt'. (Mr PS, 40 years) 'Some of them are engaged in their cases and issues, so they don't find interest in helping other prisoners'. (Mr S, 28 years) 'But I had difficulty understanding the screening tools. I felt it might be difficult for many participants to understand'. (Mr S, 36 years) 'Other important aspect is some of the prisoners, especially on the other side of the prison (Under trial) release and sometimes we were not getting time to provide any support'. (Mr K, 39 years) 'See, many of them are afraid to come to psychiatry side…because in the barrack others (prisoners) would call them many terms such as "mental" "loose" "psycho" and prisoners don't want to identify like that'. (PS 40 years)
4. Experiencing the peer supporter training	• Easy to understand • Adequacy of information and training • Need for intensive training	'The training is adequate and something related to day-to-day issues here…it is very common here (Mental illness)…it is good that you are provided only basic information which I felt adequate… otherwise it might be difficult to understand to us…'. (Mr C, 42 years)
5. Visions of ways forward	• Way forward to managing stigma • Support required from the administration	'It requires systemic support and process. We need to sensitize the entire prison about these mental health issues, including the police and others. We can use community radio as a medium, and we have used that. Until we manage that, identification and other issues are reported to be very difficult'. (Mr C, 32 years) 'For the success of these programmes, systemic support and support from administration is required'. (Mr M, 41 years)

Abbreviations: ADL, activities of daily living; DSH, deliberate self harm.

TABLE 3 Qualitative interviews with five of the identified cases.

Themes/factors	Sub-theme/sub-factors	Quotes/description
1. Subjective satisfaction	• Subjective satisfaction: Sense of being helped • Improvement in mood • Sense of being cared • Sense of being supported • Acceptance by the peer supporter	'They understand our problem because they also had a similar experience in their life, I think, so it is easy to make them understand better than anybody'. (Mr S, 49 years) 'Sir, I am feeling better now…Initially, when I came, I did not know what to be done or how I would pass this situation and then slowly, I started adjusting to this new environment with the help of him and a lot of other prisoners. He always asks me about how I am doing and any difficulties. I used to feel happy. See, sir we are coming with lots of issues and someone helping us is a great thing here'. (Mr M, 29 years) 'We have someone to help us during our issue; he (name of the peer supporter) used to sit with me and ask me frequently whether I had food, medicine and my health'. (Mr A, 26 years) 'I felt happy; he (Name) convinced me to take treatment; otherwise, I would have been there in my barrack without doing anything'. (Mr G, 42 years) 'Yes, they ask me about my health and other issues. So, I felt happy; at least some are bothered about our health. Here most of the prisoners were having difficulty getting support from the family, so help from others makes us so happy'. (Mr V, 23 years)

3.3.3 | The feasibility of the peer support programme

Taking each of the eight parameters described by Bowen et al. (2009) in turn, the peer support programme was found to be moderately feasible for *acceptability* and *implementation* (particularly taking into account the stigma relating to mental illness), the *active involvement of the peer supporters* and *practicality*, allowing for the administrative challenges such as unexpected visits by officials, and frequent changes of administration. The feasibility rating was high in terms of *meeting demand*. *Integration* with the existing mental health services in prison was high, given the development through simple methods in terms of information and training modalities. The scope for *expansion* of the model is high in any prison setting, considering the larger mental health care needs of the prisoners across the globe, but actual expansion will have to be tested in future studies, as well as its *efficacy*.

4 | DISCUSSION

To our knowledge, this is the first peer support model developed and tested for feasibility in prison settings in India. Considering the high risk for mental health and substance use-related problems among prisoners worldwide (Azbel et al., 2015; Baranyi et al., 2019) as well a general tendency towards low staffing levels, a peer support model could be one of the ways of identifying and improving mental health conditions in prison settings globally (South

et al., 2014, 2017, 2016). The study also provides a systematic description of the process of delivering peer support intervention for prisoners with various mental health needs which can be replicated in other resource-scarce countries. The assessment of peer supporters' attitudes showed that they felt better about themselves for doing this work and that their knowledge about mental disorders and attitudes to people with them improved substantially with training. Training included a discussion of case vignettes, which seemed to help them link to prior experiences of noticing or handling these kinds of problems in a prison.

While no other study in India has assessed prisoner attitudes towards mental illness among peers in prison, studies of similar training conducted in community settings in India have reported similar results (Balaji et al., 2012; James et al., 2019). It is important to emphasise that authoritarianism and social restrictiveness did not improve post-training.

A significant improvement in the self-esteem of the peer supporters was one of our important findings. In other circumstances, other researchers have reported a similar improvement in self-esteem, considered to be one of the outcomes of participating as a peer supporter (Bell & Flight, 2006; Blanchette & Eljdupovic-Guzina, 2016; South et al., 2014; Syed & Blanchette, 2010). Studies in prisons show that various activities to engage prisoners, such as recreation, music therapy (Chen et al., 2016), art therapy (Gussak, 2007) and other enriching programmes would improve the self-esteem of the prisoners (Greve et al., 2001). These activities all help them in enhancing well-being.

The peer supporters' knowledge about recognising and identifying various mental health problems improved from baseline to follow-up, thereby increasing the identification of other prisoners' mental health problems. It is really important to ensure recognition, engagement and intervention in prison settings, given the high prevalence (Azbel et al., 2015; Birmingham & Mullee, 2005; Brooker & Webster, 2017; Fazel & Seewald, 2012; Senior et al., 2013).

The role of mental health professionals—psychiatrists, psychiatric social workers, psychologists and nurses—remains important for the delivery of any mental health care (Haines et al., 2018). Our post-training results showed the peer supporters' knowledge regarding the role of professionals and specific treatments improved and would probably facilitate an appropriate referral for the treatment of the identified cases and uptake while also helping to direct to yoga, meditation and mindfulness engagement that also help improve the mental state (Bilderbeck et al., 2013; Lyons et al., 2019). The post-training assessment showed an improvement in knowledge regarding the benefits of yoga in managing mental health issues, albeit not in participants' knowledge about the magico-religious treatments (traditional faith healers and religion-based traditional healers), which have not been scientifically proven in managing mental health and substance use disorders. The reason for this could be the socio-economic status of the participants and their cultural beliefs. It may have been the way the training was presented, but we acknowledge that these pathways of care are accepted in many cultures (Grover et al., 2016; Lahariya et al., 2010; Sood, 2008). The follow-up assessment was done a week after the completion of the brief training. Here too, results may have differed with more extensive training and longer experience.

Other peer support interventions conducted in prison settings have not described the identification of prisoners with mental health and substance use disorders (South et al., 2014, 2016). The diagnoses of most of the identified cases were either substance use disorders or depression, keeping with studies that reported the same in the Indian prison settings (Math et al., 2011).

The positive association between peer support and positive effects on hope, recovery and empowerment measures at and beyond the end of the intervention has been reported in relation to other forms of peer support (Lloyd-Evans et al., 2014; South et al., 2016). The qualitative component of our research helps to understand the experience of peer supporters. In addition, studies also suggested that engaging prisoners in prison activities would aid their reform and (re)habilitation and reduce the chance of reoffending. Being a peer supporter in prison is associated with positive health; peer support services are also an acceptable source of help within the prison environment and can positively affect recipients in various ways, such as sense of being cared for and supported (South et al., 2017, 2016).

4.1 | Strengths and limitations of the study

The model was first developed in Indian prison settings for prisoners with common mental and substance use disorders. Our sample size was small—35 peer supporters—but higher than most studies with peer supporters conducted in prison settings. Further, the components of the intervention are novel; this is the first peer support intervention that has used basic counselling skills, behaviour observation, providing psychological first aid and connecting the identified cases with the mental health team and other services, regular follow up and support for medication adherence. Of particular importance, as well as noting benefits, we explored the challenges faced by peer supporters in prison settings.

The COVID-19 pandemic significantly affected the planned research process, bringing challenges to face-to-face interventions with peers, implementation of mental health awareness with supervision in the barrack and screening by peers for new incoming prisoners.

This preliminary tested model could now be extended by capacity-building programmes in resource-scarce countries across the world in the prison settings. It could be further refined by testing it in other prisons across the state and country and in more normal conditions post COVID-19 pandemic restrictions. As soon as possible, however, it should be fully tested for effectiveness in a randomised controlled trial.

5 | CONCLUSIONS

A developed model for training peer supporters from among men serving prison sentences, but of good behaviour in prison has been subject to preliminary evaluation and found to have moderate to high feasibility for implementation. Indicators of outcomes in terms of improved well-being and relevant knowledge among the supporters and a rise in identification of mental health problems and links to services are positive. A thematic model of the experience yielded five major themes of self-experienced benefits for the peer supporter, wider recognition of peer supporters in the prison, challenges to this kind of support, experience of training and visions for the future.

ACKNOWLEDGEMENTS

The authors like to acknowledge the support and contribution from the administration of Prisons and Correctional Services, the Government of Karnataka, India, former and current chief superintendents and superintendents of the central prison, Bangalore, former and current mental health team of the central prison, Bangalore and all the participants for this study. The study was conducted with the University Grant Commission (UGC) Junior/Senior Research Fellowship (award number 1447/[NET-JAN 2017]).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Sreekanth Thekkumkara https://orcid.org/0000-0002-0004-5554
Aarti Jagannathan https://orcid.org/0000-0002-2792-1075
Krishna Prasad Muliyala https://orcid.org/0000-0002-2580-9581

REFERENCES

Azbel, L., Wickersham, J. A., Wegman, M. P., Polonsky, M., Suleymanov, M., Ismayilov, R., Dvoryak, S., Rotberga, S., & Altice, F. L. (2015). Burden of substance use disorders, mental illness, and correlates of infectious diseases among

soon-to-be released prisoners in Azerbaijan. *Drug and Alcohol Dependence*, *151*, 68–75. https://doi.org/10.1016/j.drugalcdep.2015.02.034

Balaji, M., Chatterjee, S., Brennan, B., Rangaswamy, T., Thornicroft, G., & Patel, V. (2012). Outcomes that matter: A qualitative study with persons with schizophrenia and their primary caregivers in India. *Asian Journal of Psychiatry*, *5*(3), 258–265. https://doi.org/10.1016/j.ajp.2012.06.002

Baranyi, G., Scholl, C., Fazel, S., Patel, V., Priebe, S., & Mundt, A. P. (2019). Severe mental illness and substance use disorders in prisoners in low-income and middle-income countries: A systematic review and meta-analysis of prevalence studies. *Lancet Global Health*, *7*(4), e461–e471. https://doi.org/10.1016/S2214-109X(18)30539-4

Bell, A., & Flight, J. (2006). *An evaluation of the spirit of a warrior program for women offenders*. Correctional Service Canada. Retrieved from https://www.csc-scc.gc.ca/research/r180-eng.shtml

Bilderbeck, A. C., Farias, M., Brazil, I. A., Jakobowitz, S., & Wikholm, C. (2013). Participation in a 10-week course of yoga improves behavioural control and decreases psychological distress in a prison population. *Journal of Psychiatric Research*, *47*(10), 1438–1445. https://doi.org/10.1016/j.jpsychires.2013.06.014

Birmingham, L., & Mullee, M. (2005). Development and evaluation of a screening tool for identifying prisoners with severe mental illness. *Psychiatric Bulletin*, *29*(9), 334–338. https://doi.org/10.1192/pb.29.9.334

Blanchette, K., & Eljdupovic-Guzina, G. (2016). Results of a pilot study of the Peer support program for women offenders. Retrieved June 19, 2021, from http://www.csc-scc.gc.ca/research/r73e-eng.shtml

Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., Bakken, S., Kaplan, C. P., Squiers, L., Fabrizio, C., & Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, *36*(5), 452–457. https://doi.org/10.1016/j.amepre.2009.02.002

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brooker, C., & Webster, R. (2017). Prison mental health in-reach teams, serious mental illness and the Care Programme Approach in England. *Journal of Forensic and Legal Medicine*, *50*, 44–48. https://doi.org/10.1016/j.jflm.2017.07.010

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine*, *4*(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Chen, X. J., Hannibal, N., & Gold, C. (2016). Randomized trial of group music therapy with Chinese prisoners: Impact on anxiety, depression, and self-esteem. *International Journal of Offender Therapy and Comparative Criminology*, *60*(9), 1064–1081. https://doi.org/10.1177/0306624X15572795

Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: Prevalence, adverse outcomes, and interventions. *The Lancet Psychiatry*, *3*(9), 871–881. https://doi.org/10.1016/S2215-0366(16)30142-0

Fazel, S., & Seewald, K. (2012). Severe mental illness in 33 588 prisoners worldwide: Systematic review and meta-regression analysis. *British Journal of Psychiatry*, *200*(5), 364–373. https://doi.org/10.1192/bjp.bp.111.096370

GOI. (2011). *Census of India*. State of Literacy.

Greve, W., Enzmann, D., & Hosser, D. (2001). The stabilization of self-esteem among incarcerated adolescents: Accommodative and immunizing processes. *International Journal of Offender Therapy and Comparative Criminology*, *45*(6), 749–768. https://doi.org/10.1177/0306624X01456008

Grover, S., Hazari, N., Aneja, J., Chakrabarti, S., & Avasthi, A. (2016). Influence of religion and supernatural beliefs on clinical manifestation and treatment practices in patients with bipolar disorder. *Nordic Journal of Psychiatry*, *70*(6), 442–449. https://doi.org/10.3109/08039488.2016.1151930

Gussak, D. (2007). The effectiveness of art therapy in reducing depression in prison populations. *International Journal of Offender Therapy and Comparative Criminology*, *51*(4), 444–460. https://doi.org/10.1177/0306624X06294137

Guy, W. (1976). CGI clinical global impressions. In *ECDEU assessment manual*.

Haines, A., Perkins, E., Evans, E. A., & McCabe, R. (2018). Multidisciplinary team functioning and decision making within forensic mental health. *Mental Health Review Journal*, *23*(3), 185–196. https://doi.org/10.1108/MHRJ-01-2018-0001

Harish, N., Jagannathan, A., Kumar, C. N., Thirthalli, J., Chaturvedi, S. K., Kumar, D., Bhola, P., Muliyala, K. P., Thanapal, S., Radhakrishnan, G., Angothu, H., & Jayarajan, D. (2020). Development of vocational potential assessment tool and counseling module for persons with severe mental disorders. *Asian Journal of Psychiatry*. https://doi.org/10.1016/j.ajp.2019.101866

James, J. W., Sivakumar, T., Kumar, C. N., & Thirthalli, J. (2019). Change in attitude of ASHAs towards persons with mental illnesses following participation in community based rehabilitation project. *Asian Journal of Psychiatry*, *46*, 51–53. https://doi.org/10.1016/j.ajp.2019.09.031

Jorm, A. F. (2000). Mental health literacy: Public knowledge and beliefs about mental disorders. *The British Journal of Psychiatry*, *177*(5), 396–401. https://doi.org/10.1192/BJP.177.5.396

Lahariya, C., Singhal, S., Gupta, S., & Mishra, A. (2010). Pathway of care among psychiatric patients attending a mental health institution in central India. *Indian Journal of Psychiatry*, *52*(4), 333–338. https://doi.org/10.4103/0019-5545.74308

Lloyd-Evans, B., Mayo-Wilson, E., Harrison, B., Istead, H., Brown, E., Pilling, S., Johnson, S., & Kendall, T. (2014). A systematic review and meta-analysis of randomised controlled trials of peer support for people with severe mental illness. *BMC Psychiatry*, *14*(1), 39. https://doi.org/10.1186/1471-244X-14-39

Lyons, T., Womack, V. Y., Cantrell, W. D., & Kenemore, T. (2019). Mindfulness-based relapse prevention in a jail drug treatment program. *Substance Use & Misuse*, *54*(1), 57–64. https://doi.org/10.1080/10826084.2018.1491054

Math, S. B., Murthy, P., Parthasarathy, R., Kumar, C. N., & Madhusudhan, S. (2011). *Mental health and substance use Problems in Prisons. The Bangalore Prison Mental Health Study: Local lessons*. NIMHANS.

Ministry of Home Affairs, G. of I. (2020). Prison Statistics India | National Crime Records Bureau. Retrieved May 27, 2021, from https://ncrb.gov.in/en/prison-statistics-india

Rabiya, S., & Raghavan, V. (2018). Prison mental health in India: Review. *Indian Journal of Social Psychiatry*, *34*(3).

Reavley, N. J., Morgan, A. J., & Jorm, A. F. (2014). Development of scales to assess mental health literacy relating to recognition of and interventions for depression, anxiety disorders and schizophrenia/psychosis. *Australian and New Zealand Journal of Psychiatry*, *48*(1), 61–69. https://doi.org/10.1177/0004867413491157

Reddy Annapally, S., Jagannathan, A., Kishore, M. T., Daliboina, M., & Kumar, C. N. (2020). Feasibility testing of a supported education programme for students with severe mental disorders. *International Journal of Social Psychiatry*. https://doi.org/10.1177/0020764020926224

Rosenberg, M. (1965). Rosenberg Self-Esteem Scale (Rosenberg, 1965). *Personality and Social Psychology Bulletin*, 443–451.

Senior, J., Birmingham, L., Harty, M. A., Hassan, L., Hayes, A. J., Kendall, K., King, C., Lathlean, J., Lowthian, C., Mills, A., Webb, R., Thornicroft, G., & Shaw, J. (2013). Identification and management of prisoners with severe psychiatric illness by specialist mental health services. *Psychological Medicine*, *43*(7), 1511–1520. https://doi.org/10.1017/S0033291712002073

Sood, A. (2008). Women's pathways to mental health in India, 0–7. Retrieved from https://escholarship.org/uc/item/0nd580x9

South, J., Bagnall, A.-M., Hulme, C., Woodall, J., Longo, R., Dixey, R., Kinsella, K., Raine, G., Vinall-Collier, K., & Wright, J. (2014). A systematic review of the effectiveness and cost-effectiveness of peer-based interventions to maintain and improve offender health in prison settings. *Health Services and Delivery Research*, *2*(35), 1–218. https://doi.org/10.3310/hsdr02350

South, J., Bagnall, A. M., & Woodall, J. (2017). Developing a typology for peer education and peer support delivered by prisoners. *Journal of Correctional Health Care*, *23*(2), 214–229. https://doi.org/10.1177/1078345817700602

South, J., Woodall, J., Kinsella, K., & Bagnall, A. M. (2016). A qualitative synthesis of the positive and negative impacts related to delivery of peer-based health interventions in prison settings. *BMC Health Services Research*, *16*(1), 525. https://doi.org/10.1186/s12913-016-1753-3

Syed, F., & Blanchette, K. (2010). Results of an evaluation of the Peer Support Program at Grand Valley Institution for Women. Retrieved from http://publications.gc.ca/collections/collection_2010/scc-csc/PS83-3-86-eng.pdf

Taylor, S. M., & Dear, M. J. (1981). Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin*, *7*(2), 225–240. https://doi.org/10.1093/SCHBUL/7.2.225

Thekkumkara, S. N., Jagannathan, A., Muliyala, K., & Murthy, P. (2022a). Development and validation of a peer support programme for the prisoners with mental and substance use disorders in India. *Indian Journal of Psychiatry*, *64*(3), 316. https://doi.org/10.4103/INDIANJPSYCHIATRY.INDIANJPSYCHIATRY_416_21

Thekkumkara, S. N., Jagannathan, A., Muliyala, K. P., & Murthy, P. (2022b). Psychosocial interventions for prisoners with mental and substance use disorders: A systematic review. *Indian Journal of Psychological Medicine*, *44*(3), 211–217. https://doi.org/10.1177/02537176211061655

Warwick Medical School. (2015). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS). Retrieved from https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs

Watson, R., Stimpson, A., & Hostick, T. (2004). Prison health care: A review of the literature. *International Journal of Nursing Studies*, *41*(2), 119–128. https://doi.org/10.1016/S0020-7489(03)00128-7

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Thekkumkara, S., Jagannathan, A., Muliyala, K. P., Joseph, A., & Murthy, P. (2023). Feasibility testing of a peer support programme for prisoners with common mental disorders and substance use. *Criminal Behaviour & Mental Health*, 1–16. https://doi.org/10.1002/cbm.2287