Attitudes of female warders towards inmate who self-harm: A pilot exploratory study from an inner-city prison in South India.

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Jones, S., Kumar, P., Eost-Telling, C., Krishna, M. (2021). Indian prison staff knowledge and attitudes in caring for people in prison who self-harm. An exploratory study.

WORD COUNT; including reference list =

Key words; deliberate self-harm, India prison staff, knowledge and attitudes, attempted suicide.

Abstract

Background. Self-harm is a global public health challenge. The management and treatment of those who self-harm is emotionally challenging, and can sometimes manifest in negative attitudes amongst staff who provide care. Health professional's attitudes towards deliberate self-harm have been studied globally, however, evidence regarding prison staff attitudes is sparse, and particularly lacking in India.

Aims The primary aim of this study was to explore the attitudes of female prison warders towards prison inmates who self-harm in an Indian setting.

Methods A cross-sectional survey using a questionnaire to measure knowledge and attitudes was administered to prison warders from one city prison in South India.

Results: Of the 210 approached to participate, 170 female warders completed the survey questionnaire. In general, sociodemographic factors of the prison warders were unrelated to their attitudes towards self-harm, and a negligible few had received any training specific to self-harm**.**

Conclusion The results allow a series of recommendations for educational and skills initiatives to be made. These can inform intervention initiatives and further, provide a basis for cross-cultural professional comparison studies. Interventions must focus on current resources, cultures, practice and contexts to move the evidence base forward. Self-harm educational content for staff should include knowledge and attitudinal interventions into causes, reasons, motivations, forms and purpose of self-harm. Staff responses to those who self-harm, irrespective of setting, should include assessment, management, interventions undertaken and incorporated daily practice. Importantly, this work may influence prisoner treatment outcomes and is worthy of further study.

Introduction

Knowledge and attitudes towards self-harm, with or without suicidal intent is explored, accepting considerable conceptual differences in the language of suicide and self-harm exist. This study explores the knowledge and attitudes of prison warding staff within an Indian training prison, and it important to contextualise the research grounding it within the population and culture investigated. India is recognised as having one of the highest suicide rates globally, especially Southern India where this study in located (WHO, 2017). This study does not separate the constructs of self-harm with and without suicidal intent, and explored the concept of self-harm. This may further highlight the need for knowledge and attitudinal change as a precursor to any intervention training.

It is important to consider definitions of self-harm and suicide, it is important to distinguish between. However, our aim is to raise the general issues before they can be unpicked in future studies. Language and definitions of suicide and self-harm do differ in India in comparison to the UK for example. The National Institute for Clinical Excellence (NICE, 2004) define self-harm as self-poisoning or self-injury irrespective of the apparent purpose of the act. A factor which influences care and can increase the risk of suicidal behaviour is staff attitudes towards patients and their working knowledge about self-harm (Ireland and Quinn, 2007; Jones et al, 2015). We acknowledge staff attitudes can be influenced by a number of factors. Suicide-related behaviour including self-harm is a complex construct which has been widely researched. However, a lack of consistency exists in what constitutes this behaviour, largely due to this individual's intent before the act (O'Carroll, & Joiner, 2007). Moralistic attitudes towards suicide in India generally and in certain professional groups may also be related to cultural and religious teaching influences (Osafo et al., 2012).

Within the UK Prison Service, and mental health services generally, determining suicidal intent during periods of heightened emotional state is an assessment objective, aimed at separating self-harm from suicide intent. However, evidence suggests that the two often coexist and that changing between both often fluctuates (Lohner and Konrad, 2006). Studies largely focus on health care staff knowledge and attitudes, concluding that negative attitudes towards patients experiencing mental

health problems can lead to detrimental outcomes, perhaps delaying help seeking and recovery (Clement et al., 2015). Self-harm data specifically is not forthcoming from Indian custodial settings. The impact of this harming behaviour on Indian prison officers and prisoners warrants closer attention. Available data about the prevalence of suicide in Indian prisons is lacking, however evidence from NCRB report suggests 71% of the unnatural deaths in Indian prison from 2007-2011 were by suicide (NCRB, 2018; Sawant, 2018). Interestingly the general public suicide average for this period was 11 per 100,000 of population, with the Indian prison average suicide rate reported as 16.9 per 100,000 populations (Sawant, 2018).

Suicide and self-harm related behaviour amongst adult male offenders within the UK Prison Service is currently at record levels. Recent UK prison data for self-harm in the 12 months to September 2018, reported there were 52,814 incidents, a 23% increase from the previous year (629 incidents of self-harm per 1,000 prisoners). In the same period incidents requiring hospital attendance increased by 4% to 3,179, the highest figure to date, up 12% at 15,316. Those who self-harmed did so, on average, 4.2 times, although a small number of prolific self-harmers had a disproportionate impact on this UK figure (Ministry of Justice, 2019). This was for a population of around 96,000 prisoners.

The pilot exploratory study aims to develop an understanding of prison officers' experiences of working with suicide-related behaviour in a large inner-city prison in Southern India. Limited research in this area exists. The project team has previously conducted a study exploring knowledge and attitudes towards self-harm among staff in general hospitals (Kumar et al, 2016). The same exploratory approach was adopted in this study with prison warder staff.

Background Literature

Suicide and self-harm (SH) are significant global public health problems (Karmen et al, 2015; Krug et al, 2002; WHO, 2009). It is estimated that the number of non-fatal SH episodes are 10 to 100 times greater than the number of deaths (Silverman, 2009: Pirkis, 2009). However, SH is associated with successful suicide in some instances, with 84% of cases occurring in low- and middle-income countries, and India and China together accounting for 49% of global suicides (Philips and Cheng, 2012). Health care professionals play a central role in the care of people who self-harm. Care

and management approaches towards those who SH should be similarly available irrespective of the setting or context.

All staff working with individuals at risk of SH need to respond appropriately, as the relationship between SH and suicide is well established (Colman et al, 2004). Suicide risk after SH is 50 times greater than in the general population (Dower, 2000). There is a growing body of literature examining the attitudes of health care staff towards those who self-harm (Mackay, 2005; Suominen, 2007). Staff more often than not report feeling frustration following harm incidents and may have difficulty feeling empathy for those patients (Berlim et al, 2007). These associations combined with uncertainty about how to manage self-harming individuals in their care, due to a lack of knowledge, compound the issue for all involved (Mackay, 2005; Friedman et al, 2006; Berlim et al, 2007). A literature review undertaken on nurse's attitudes to self-harm found that revealed negative attitudes impacted on the quality of care (Karman et al, 2015).

Self-harm and suicide attempters have been recognised as a major public health problem in India for some time, but there are significant obstructions to effective interventions, including difficulties in establishing local models to understand these behaviours and associated unfavourable attitudes of professionals towards people who self-harm (Aaron et al, 2004; Bose et al, 2006; Gunnell et al, 2007). Mental health awareness in India is receiving closer attention among the general population, highlighted through disadvantaged populations such as the homeless, migrants, and more recently, prisoners. Prisoners remain a neglected group in India, with low recognition and identification of mental health issues (Rabiya and Raghaven, 2018). Published studies and research in prison settings in India is limited when compared to other Higher Income Countries (HICs). Therefore, it is imperative to better understand the mental health needs of both prison staff and prisoners in LICs.

Staff attitudes towards self-harm patients are related to a number of demographic and employment factors and more experienced staff tend to have more positive attitudes than younger less experienced staff (McCann, 2006; Suominen, 2007; Rajendra et al, 2016). Some studies have reported that female professionals have more positive attitudes than male highlighting gender differences (Mackay, 2005; Suominen, 2007). A lack of education and training are more often than not cited as primary rationale for

negative attitudes followed by the professional's perception differences between their expected and actual roles. There is developing literature in support of positive attitudes among health professionals that enhances the effectiveness of care and treatment towards patients who have self-harmed in the UK (Rayner et al, 2005; McAllister et al, 2008; Hicks and Hinck, 2009).

SH is associated with successful suicides with 84% of global suicides occurring in low- and middle-income countries, out of which India and China alone account for 49% of global suicides (Philips and Cheng, 2012). Due to definition inconsistencies in what constitutes SH or attempted suicide have been explored broadly. The rate of admissions to hospitals in India following suicide attempts has fast become a major public health concern (Khan, 2002; Gururaj et al, 2004). Suicides in India differ from those in western countries in a number of ways like the high use of pesticides, large numbers of married women, yet fewer elderly subjects, with family relationship problems and life events being important causative factors (Gunnel et al, 2000; Khan, 2002; Hawton et al, 2003; Jones et al, 2014).

Suicide and attempted suicides impose a huge social, emotional and economic burden on families and society (Kessler et al, 2005). Developing educational initiatives and health resources seems a sensible step towards developing services for those who have attempted to harm themselves which may start with staff involved in their direct care. In one study undertaken on nursing students in northern India, a suicide opinion questionnaire identified the need for enhancing educational exposure of nursing students at the earliest opportunity (Nebhinani et al, 2013). The largely descriptive data that follows from the exploratory study provides a foundation that future studies can further refine.

MATERIALS AND METHODS

Location

The prison is a large inner-city prison in Southern India built to accommodate 562 prisoners, although it currently accommodates over 1,000 inmates. The prison has a large purpose-built training centre which offers training for prison staff from positions throughout the state. Issues in Indian prisons are not dissimilar to those in the UK: overcrowding, older estate buildings and low staffing level among them.

Participants

Participants in this study, which was an exploratory in nature, were recruited from the training department records at the prison. The prison has mixed sex inmates, accommodated in separate wings, although the majority of prisoners are male. However, culturally it is considered more appropriate for women to look after female prisoners, but for the male prison population mixed sex warders is standard. All female warders (n= 210) identified through the training department were asked to complete the questionnaire, and a convenience sample of 170 prison warders was achieved, resulting in a response rate of 81%.

Ethics

Ethical committee approval for the study was gained from the identified prison senior training department committee, India in November 2018.

Instrument

The core questionnaire used in this study was based on a prior instrument developed for use in a UK study of prison officers' attitudes towards inmates who self-harmed (Gough, 2000). This questionnaire was culturally adapted use in South India in our previous study (Kumar et al, 2016*).* The questionnaire consisted of 30 statements related to SH, and measuring both the knowledge and the attitudes towards SH. A further seven tailored questions (validated for face and construct validity by experts in the research team) gathered data relevant specifically to the Indian prison setting. Responses were collected using a five-point Likert scale from strongly agrees to strongly disagree, and negatively worded items were reverse coded. Results were analysed using an overall scale score ranging from 30 to 150 and also for each question individually. Higher scores indicate a more positive attitude towards people who self-harm. Demographic data were collected including marital status, education level, religion, experience of family and friends self-harming or suicide and if training on dealing with patients who SH.

Procedure

Questionnaires were distributed to all newly appointed female prison warders at the prison between May to June (2019). Questionnaires exploring participants'

knowledge, attitudes and experience level working with those who self-harm, were delivered by hand, and researchers explained the purpose and content of the questionnaire to each participant.

Data Analyses

We analysed the data with an overall score for the questionnaire, but also explored each of the items individually as stand-alone questions. Negative items on the questionnaire were reverse coded in IBM SPSS version 26.0. Descriptive analysis was used to describe the sample, and non-parametric analysis using Mann Whitney U and Kruskal-Wallace tests was employed to look for differences amongst the groups.

RESULTS

The results highlight the specific challenges faced by officers when considering self-harming behaviour, alongside more general challenges facing public and private health care providers in India. Recommendations are made about how organisations could provide better training support staff and therefore those under their care.

Demographic data

The majority of respondents in the study cohort were single (77.6%) and 65.3% of the group had been educated to graduate level. Fewer respondents had achieved postgraduate level education, 14.7% or were at diploma level 7.6%. The most prevalent religion amongst respondents was Hinduism (93.5%) with a much smaller number of Muslims (5.3%) and Christians (1.2%) in this study.

The number of respondents who reported having experience of a family member or close friend self-harming or committing suicide was 14.1% and very few (1.2%) recorded having received any training to deal with people who had self-harmed.

Table 1: Participant demographics

		Prison staff, *n* (%)
Marital status	Single	132 (77.6)
	Married	38 (22.4)
	Divorced	-
Highest education level	Postgraduate	25 (14.7)
	Graduate	59 (34.7)
	Diploma	13 (7.6)
	PUC	21 (12.4)
	SSLC	52 (30.6)
Religion	Hindu	159 (93.5)
	Christian	2 (1.2)
	Muslim	9 (5.3)
Have experienced family member / close friend self-harming or suicide?	Yes	24 (14.1)
	No	146 (85.9)
Have undergone training in how to work with people who have self-harmed?	Yes	2 (1.2)
	No	168 (98.8)

Overall attitude scores

Questionnaire scores ranged from 97-131 with a mean score of 112.71 (SD 6.02). Kruskall-Wallace tests showed there were no significant differences in overall score when comparing for Marital status ($H(1) = 0.01$, $p=0.92$), Highest education level ($H(3) = 1.50$, $p=0.69$) or Religion ($H(1) = 1.10$, $p=0.29$). Mann-Whitney U tests also showed no significant differences in overall score between those who did and did not have experience of a family member or close friend self-harming ($U=1713$, $z=-0.18$, $p=0.86$, $r=0.10$), or between those who did and did not have training in how to work with people who have self-harmed ($U=146.5$, $z=-0.31$, $p=0.76$, $r=0.02$).

Responses to individual items are shown below in Table 1

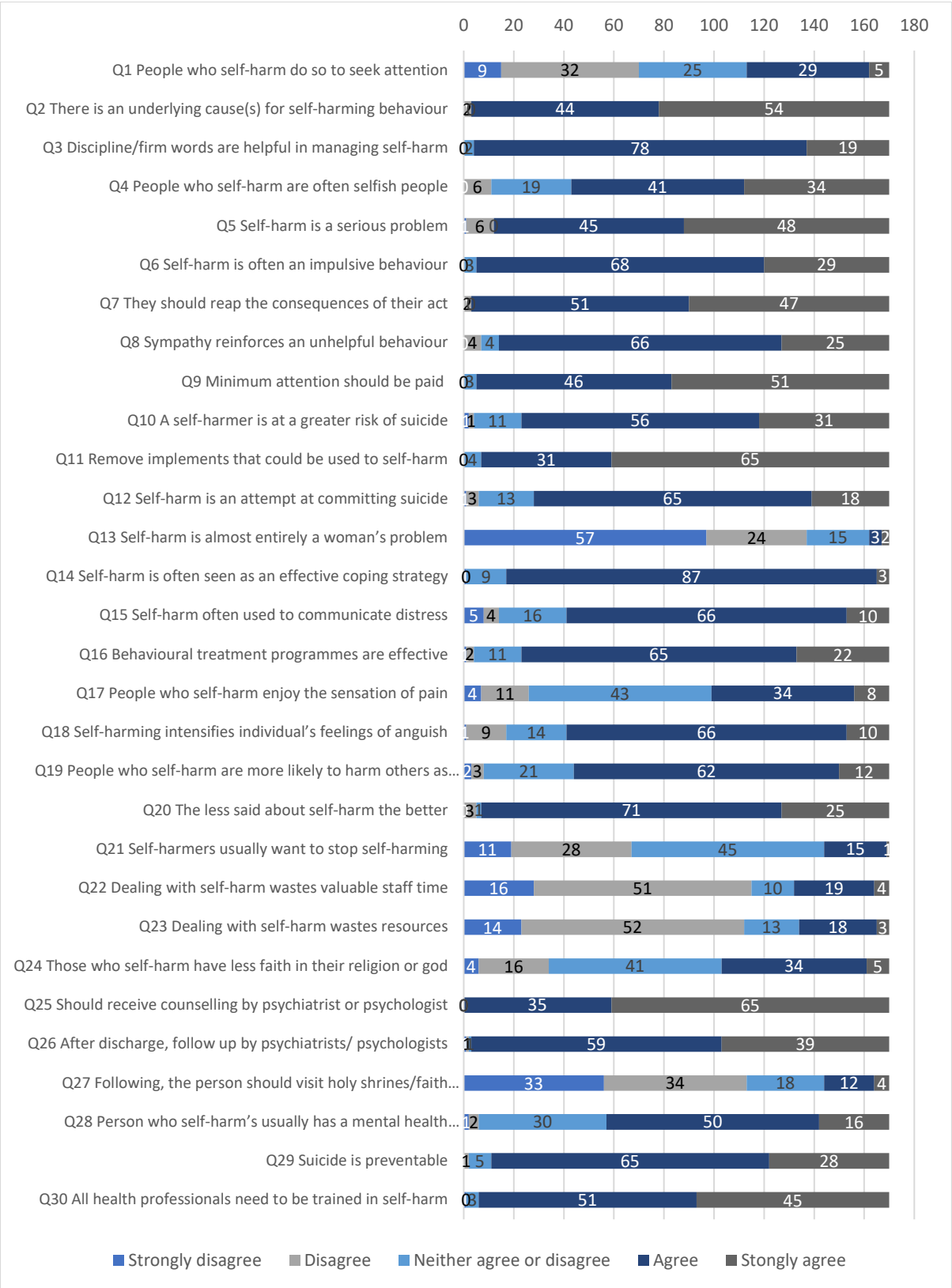

Figure 1: Responses to individual questionnaire items

Although there were no significant differences between any of the participant's overall scores on the questionnaire, when looking more closely at individual items on the scale, there were some differences, as described below.

Effect of marital status on attitudes

Marital status of study participants was generally unrelated to the questions regarding attitudes, with the exception of *"After the discharge from the hospital following an act of self-harm, there should be follow up by psychiatrists/ psychologists"* whereby single respondents (Mdn=4.00) agreed significantly more with the statement than married respondents (Mdn=3.00) (U=1887, z=-2.71, p=0.007, r=0.21).

Education level effects

There were significant differences in responses to the statement *"People who self-harm do so to seek attention"* amongst groups with different levels of education (H(3)=14.43, p=0.02). Post hoc analysis shows this difference to be between respondents in the graduate group (Mdn=3.00) and postgraduate group (Mdn=4.00) (U=805.50, z=-3.04, p=0.001, r=0.26) and also the graduate group (Mdn=3.00) and the diploma group (Mdn=4.00) (U=485.5, z=-2.01, p=0.042, r=0.16), however the effect sizes are very small.

Experience of family members or friends self-harming / committing suicide

Twenty-four respondents (14.12%) indicated that they had experience of family members or friends self-harming or committing suicide. However, there were no important differences between the group with experience (Mdn=4.00) and those without experience (Mdn=4.00) in their attitudes towards SH, except, except in response to the statement *"People who self-harm are more likely to harm others as well"* (U=1340, z=-2.13, p=0.03, r=0.16), but again effect sizes were small.

Effect of having undergone training in how to work with people who have self-harmed

As only two people reported receiving training in how to work with people who have self-harmed, and therefore the sample sizes are too small to make meaningful comparisons. However, this highlights the dearth of formal training prison warders receive in dealing with those who self-harm. This result highlights a lack of training in a large prison staff population that have direct contact with prisoners daily. It does not however capture on the job experience or training.

Discussion

There is a growing number of prisoners who SH in prisons both in India and from HICs (Ramluggun, 2013). This study has recognised that training and awareness level of needs of those who SH among female warders is less than satisfactory, these findings are similar to those from HICs, although staff from the latter settings is more likely to have received mandatory training, and access to dedicated training resources. It is well known that prison staff with limited training and negative attitudes towards SH often feel unsupported and inadequately equipped to manage self-harm (Ramluggun, 2013).

Positive attitudes towards those who SH among prison staff are essential to deliver quality interventions. This applies to other care settings too. For example, in our previous study in the same city we demonstrated that negative attitudes towards those who self-harm were as common among nurses (the vast majority of whom were also women) (Jones et al, 2015; Karman et al, 2015) as we have found among the prison warders in this study. The influence of professional's age, gender; personal and work related experience on attitudes towards SH remains unclear to date. It is widely known that differences exist between pre-trial inmates and sentenced prisoners in terms of higher SH risk. Certain time periods are known to hold a heightened risk for suicide in prisoners namely, first 24 hours of confinement, those with substance withdrawal phenomenon, waiting for a trial, sentencing, impending release, change of cell, holidays, or decreased staff supervision (Sawant, 2018). The challenge is these risk areas are multiple and the complexity of such situations do not allow staff to pin down the details sufficiently. Therefore, staff should remain vigilant throughout confinement and perhaps it is the processes and routines that could be improved upon. This is a challenge as resources have to be scrutinised alongside such initiatives being implemented.

It is argued that a major change is needed regarding certain staff groups attitudes towards those who SH, resulting in calls for educational initiatives that challenge and modify stereotypes and negatives beliefs, to be made widely available. Professional interventions should be based upon a therapeutic partnership with prisoners, irrespective of the health concern or treatment context. If these negative held beliefs and limited or inaccurate knowledge are to be addressed, time and resources must be given to building and developing learning/ meaningful relationships with staff, and ultimately integrating changes into daily practice for this vulnerable group. Staff also

report feeling inadequately trained to care for self-harm patients and recognise the need for development in this area (Mackay, 2005; Friedman, 2006; Berlim, 2007).

After a review of the available literature, our study has the third largest number of participants (n=170) in any study of this kind post 2006 study (n=968) (Palmer and Strevens, 2006). Unlike the present study across general Indian prison service staff, both the above studies were undertaken with hospital A & E staff, and the current study may have benefitted from an additional group staff to allow comparison with other studies. In contrast with the previous studies which have usually clustered attitudes into positive and negative, our study measured the attitudes on a linear scale with the attitude being better proportionally with the scores. The response rate of 170 staff from 180 questionaries' issued was far better than in most studies till date. Differences in SH attitudes in UK have been seen in general hospital settings, with negative attitudes correlating with greater experience (Friedman et al, 2006). Conversely, there have been studies showing improvements in attitude with experience especially in psychiatric settings (Samuelsson et al, 1997; Huband and Tantam, 2000; Nebhinani et al, 2013).

There may also be differences in attitude towards those who SH between sexes Earlier findings indicated female staff had more positive attitudes than male staff (Samuelsson et al, 1997; Anderson et al, 2000). However, as this study had an all-female participant group, the gender role association (male warders and female warders) was not considered and limits the findings of this study. Nevertheless it is an area which warrants further research.

Thus far, from the review of the available literature, no studies have been identified that examine staff educational attainment levels, or whether this has any effect on attitudes towards those who SH. This aspect was included in the present study but no significant differences were found in the population studied. One more startling fact was the limited number of prison staff who had undertaken any training in managing people who SH.

The majority of studies regarding staff attitudes towards patients who self-harm have investigated specific professional groups, i.e., nurses or doctors (Anderson, 1997) or hospital accident and emergency (A & E) teams (MacKay and Barrowclough, 2005). Comparatively few studies have focussed on the training offered to prison staff and

their skill equipping needs. It should not be assumed that good work is not already occurring; it might be it requires capturing in custodial settings. To that end qualitative studies to enrich understanding may assist and bring increased clarity.

Future projects within Indian prison setting may explore interdisciplinary communication and shared ownership with local health services, moving towards the prison as part of the community. Ongoing prison-staff peer support to raise staff awareness and focus on self-harm prevention is another area which would be of interest, and which has the potential to enhance staff-prisoner relationships. Greater awareness of SH can increase understanding and support towards individuals who SH. These suggestions must however be carefully investigated, consistently implemented and supported with sufficient human resources, underpinned with ongoing support and supervision from within the prison and health staff outside.

In conclusion, the number of studies in India remains minimal compared to other countries, despite the high prevalence of psychiatric disorders such as substance use, mental illness and suicidal risk among prison inmates in India. It is a priority to study predisposing factors to SH and effective treatment options for better delivery of mental health among prisoners (Rabiya and Raghavan, 2018). An important first step from a staff perspective is to highlight the issues at a cultural level, and learn from other disciplines' experiences to build a knowledge base, and identify the many challenges that exist when working in closed environments. Further, it is essential to better understand how self-harm can affect both those caring for prisoners and those contained. The need for studies that explore the impact of levels of staff training, grades of staff, gender differences, best practice approaches and if training can cross sutures and countries, warrant further investigation.

Strengths and limitations

We used a SH measure from an earlier study and culturally adapted questionnaire to measure attitudes of the participants in this study. The questionnaire had items both in English and local language (Kannada). The response rate in the survey was good, with 170 convenience sample out of 210 people completing the questionnaire. What was remarkable was that of these completed questionnaires, there were no missing data.

This study was carried out in one large city prison in South India, and comprised of only women participants. Therefore, caution should be exercised before generalising the findings beyond the study settings. Due to the relatively small sample size in the study we had several items, which had small effect sizes and the findings are largely descriptive. The motivations for self-harm in prison (and suicide), and how they differ between men and women are not very well understood within an Indian context. This is particularly the case for self-harm by adult men prisoners in the UK and India. The existing evidence base on self-harm is complex and often co-occurs with suicide within studies.

Despite the above limitations this is the first pilot exploratory study, evidencing limited training and awareness in this vital area of care in a professional group working with risk populations, and which should be considered as a starting point for further research. Highlighting a need for prison staff SH training must also have staff support skills development supervision in place. Above all, the greater challenge is to make provisions for evidence-based training for the prison staff in resource poor LMIC settings, such as India.

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