This is a repository copy of Chapter 5. Problem-Solving Training for Suicidal Prisoners.

White Rose Research Online URL for this paper:
http://eprints.whiterose.ac.uk/117484/

Version: Published Version

Book Section:

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.
5 Problem-solving training for suicidal prisoners

Amanda Perry, Mitch Waterman and Allan House

Introduction

Self-harm has been a major health problem in the UK for 50 years. Rates have never been collected for England nationally, but estimates based on Department of Health–funded multi-centre monitoring (Manchester, Oxford and Derby) suggest that rates in hospital presentations included around 350 males and 480 females per 100,000 per annum (Bergen, Hawton, Waters, Cooper, & Kapur, 2010). However, many of those who self-harm are based in prisons (and do not therefore attend hospital), and rates of self-harm and eventual suicide far exceed the rate within the general population (Fazel, Grann, Kling, & Hawton, 2011). A recent case control prison study estimated that the annual prevalence of self-harm in custody was between 5–6% for men and teenage boys and 20–24% in women and adolescent girls (Hawton, Linsell, Adeniji, Sariaslan, & Fazel, 2014). This proportion is much higher than the 0.6% of the UK general population who reported self-harm in the preceding year (Bebbington, Minot, & Cooper, 2010). In addition, self-harm is a major problem in the prison environment because individuals often repeatedly harm themselves, and such repetition has been shown to increase the probable risk of ultimate suicide. Eventual suicides are 5 times higher in male prisoners and 20 times higher in female inmates than in general population controls (Fazel & Benning, 2009; Fazel, Benning, & Danesh, 2005). As many as 1.8% of people who harm themselves die by suicide in the year following the incident (Owens, Horrocks, & House, 2002), and in the community as many as 8.5% die by suicide over a 22-year-period (Jenkins, McCulloch, & Friedli, 2002).

Treatment of self-harm behaviour in prisons is generally anecdotal but has been improved in recent years through several initiatives, including the introduction of Safer Custody measures through the Assessment, Care in Custody and Teamwork (ACCT) system (UK Ministry of Justice, 2013), enhanced mental health services and piecemeal environmental
improvements (Forrester & Slade, 2014). Despite these improvements, a
renewed approach to the care of prisoners who self-harm is required along-
side the need for raising staff awareness and further training as important
issues in the prevention of self-harm and suicide in prisoners (Hawton
et al., 2014).

Possible treatment options are unclear from the evidence for a number
of reasons. First, a handful of trials have been conducted in the community
with individuals who self-harm but not with offender populations. Second,
data particularly on repetition of self-harm have been limited in previous
trials (Hawton et al., 2000). However, one potential treatment that shows
promising results for the repetition of self-harm behaviour is problem-
solving therapy (PST). This is particularly useful because evidence from
experimental studies suggests that studies of patients who have attempted
suicide have shown specific deficits in problem-solving abilities (e.g.,
Linehan, Camper, Chiles, Strosahl, & Shearin, 1987; Schotte & Clum,
1987), consistent with the hypothesis that attempted suicide may relate to
failures of problem solving at times of crisis.

Poor problem-solving skills are associated with impulsive responding
and incomplete solutions. With people who have self-harmed, they display
less active problem solving, reliance on the actions of others, waiting for
resolution, and poor generation of alternative solutions. The first and most
obvious reason to offer PST is because so many people who harm them-
selves report the main immediate cause as being problems in their lives.
Research also suggests that people who attempt suicide can have poor
problem-solving skills more generally (Linehan et al., 1987; McLeavey,
Daly, Murray, O’Riordan, Taylor, 1987; Pollock & Williams, 2001). Typi-
ically, they tend to be less active in their problem-solving efforts. Many
rely on the actions of others or the passage of time to solve the problem
rather than taking an active part in solving the problem (Pollock & Wil-
liams, 2001).

Social problem solving stems from a concept originally outlined by
Skinner (Skinner, 1953) and Davis (Davis, 1966) whereby the approach
of problem solving is defined as a self-directed cognitive behavioural pro-
cess by which a person attempts to identify or discover effective or adap-
tive ways of coping with problematic situations. The role of coping within
problem solving has been recognised as using two different information
processing systems that play a role: an automatic or experiential system
and a non-automatic or rational system, which includes rational problem
solving. The automatic response is a result of rapid decision making and
is intuitively validated as ‘feeling right’. The non-automatic or rational
system is a slower process whereby deliberate and logical decisions are
made most likely when critical problematic situations arise where ‘much is at stake’ and the automatic retrieval process has failed to produce any adequate or acceptable solution.

This research is supported by D’Zurilla and colleagues (1998), who noted that individuals who are “suicide prone” have a characteristic set of negative thoughts and feelings about problems and about their ability to solve problems. Typically, they perceive problems as some sort of a threat to their well-being. They tend to blame themselves for problems when they occur and doubt their own ability to solve problems effectively. They are more likely to view problems as unsolvable and to feel distressed and upset when faced with a problem. D’Zurilla and colleagues (1998) go on to suggest that these beliefs and feelings have an impact on how people actually respond to problems. Instead of facing problems as they arise, and being persistent in their problem-solving efforts, the suicide-prone individual is likely to either avoid problems or respond impulsively. When avoiding problems, he or she tends to either put off solving problems for as long as possible, wait for problems to resolve themselves or try to shift the responsibility for solving problems on to others. When responding impulsively, the person does attempt to solve problems, but these attempts are not well thought out. Avoidant and impulsive responses are not likely to result in effective problem solving and thus risk reinforcing the negative beliefs and feelings (D’Zurilla & Goldfried, 1971).

Original experimental studies conducted first in 1978 and later in the 1990s have developed a growing body of evidence to support the use of PST with patients who self-harm or who are at risk of suicide. Individual trial data have shown a variety of results, with some moderate improvements in problem-solving skills, depression, hopelessness and self-harm repetition. The most recent research has used meta-analytical techniques to combine trial data to provide an overall effect for different types of outcomes. Two systematic reviews provide tentative support for the use of problem-solving techniques (Hawton et al., 2009; Townsend et al., 2001). The first of these combine two of six randomised controlled trials (RCTs) for the treatment of deliberate self-harm behaviour (containing a total of 71 and 55 individuals assigned to the intervention and control groups).

The results overall showed that patients who were offered the therapy had significantly greater improvement in scores for depression and hopelessness and also importantly reported a greater level of improvement in their problems in comparison with those in the control group. One of the two trials showed a non-significant result (Gibbons, Butler, Urwin, & Gibbons, 1978), and the other showed a clear significant reduction in the numbers of problems reported; together they produced an overall reduction
Amanda Perry, Mitch Waterman and Allan House

(Hawton et al., 1987). However, concerns with regards to trial size have been reported by other researchers (US Preventive Services Task Force, 2004), which judged the existing studies to have three main limitations: a lack of power, poor description of standard care and inconsistent age ranges across studies (Cooper et al., 2005).

The second review found similar findings. Hawton et al. (2000), as part of a larger Cochrane systematic review focusing on psychological therapies for self-harm, included trials comparing problem solving interventions alongside standard treatment. The problem solving meta-analysis showed a trend towards ($OR = 0.70; 95\% CI 0.45$ to $1.11$) reduced repetition of self-harm for problem solving therapy compared with standard aftercare (Evans et al., 1999; Gibbons et al., 1978; Hawton et al., 1987; McLeavey, Daly, Ludgate, & Murray, 1994; Salkovskis, Atha, & Storer, 1990). Since this 2009 review, we sought to identify any further trials using PST. We identified two further trials of PST in patients that self-harmed. Figure 5.1 shows the existing problem-solving trials identified by Hawton and colleagues combined with the results of the two most recent trials (Hatcher, Sharon, Parag, & Collins, 2011; Morthorst, Krogh, Erlangsen, Alberdi, & Nordentoft, 2012). The addition of the two new trials on outcomes of repetition show modest effects in favour of PST for repetition of self-harm ($OR = 0.70; 95\% CI 0.45$–$1.10$).

The first of these two trials evaluated the effect of PST in adults presenting to hospital following self-harm (defined as intentional self-poisoning or self-injury, irrespective of motivation). Patients were randomised to PST plus usual care or usual care alone. PST consisted of at least 4, and up to 9, sessions (including problem orientation, problem listing and definition, brainstorming and devising an action plan) starting as soon as possible after the index episode and lasting for up to 3 months. Follow up data on hospital presentations were obtained for 100\% of randomised patients. The primary outcome was presentation to hospital following self-harm in the 12 months subsequent to the index presentation (Hatcher et al., 2011).

An intention-to-treat analysis among patients whose index episode was their first presentation for self-harm showed no significant difference in the proportion of repeat self-harm between the groups ($p = 0.37$). However, for those initially presenting with repeat self-harm, PST was associated with significantly less re-presentation at 12 months ($RR = 0.39, 95\% CI 0.07$ to $0.60, p = 0.03$). Among this sub-group, there was also a significantly shorter time to repetition of self-harm (hazard ratio [HR] = $0.58, 95\% CI 0.36$ to $0.94, p = 0.03$) than usual care. Participants who received PST also had significantly greater changes in outcomes of hopelessness, depression and anxiety.
Figure 5.1 Forest plot of problem-solving interventions on repetition of self-harm

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Problem solving Events</th>
<th>Care as usual Events</th>
<th>Total Events</th>
<th>Weight</th>
<th>Odds Ratio M-H, Random, 95% CI</th>
<th>Heterogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salkovskis, 1990</td>
<td>3</td>
<td>12</td>
<td>4</td>
<td>8</td>
<td>0.33 [0.05, 2.24]</td>
<td></td>
</tr>
<tr>
<td>McLeavy, 1994</td>
<td>2</td>
<td>19</td>
<td>5</td>
<td>20</td>
<td>0.35 [0.06, 2.09]</td>
<td></td>
</tr>
<tr>
<td>Hawton, 1987</td>
<td>3</td>
<td>41</td>
<td>6</td>
<td>39</td>
<td>0.43 [0.10, 1.87]</td>
<td></td>
</tr>
<tr>
<td>Hatcher, 2011</td>
<td>26</td>
<td>88</td>
<td>49</td>
<td>104</td>
<td>0.47 [0.26, 0.86]</td>
<td></td>
</tr>
<tr>
<td>Evans, 1999</td>
<td>10</td>
<td>18</td>
<td>10</td>
<td>14</td>
<td>0.50 [0.11, 2.21]</td>
<td></td>
</tr>
<tr>
<td>Gibbons, 1978</td>
<td>27</td>
<td>200</td>
<td>29</td>
<td>200</td>
<td>0.92 [0.52, 1.62]</td>
<td></td>
</tr>
<tr>
<td>Morthorst, 2012</td>
<td>20</td>
<td>123</td>
<td>13</td>
<td>120</td>
<td>1.60 [0.76, 3.38]</td>
<td></td>
</tr>
<tr>
<td><strong>Total (95%CI)</strong></td>
<td><strong>501</strong></td>
<td><strong>505</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>0.70 [0.45, 1.10]</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total events = 91
Heterogeneity: Tau^2 = 0.11; Chi^2 = 8.94, df = 6 (P = 0.18); I^2 = 33%
Test for overall effect: Z = 1.54 (P = 0.12)
One potential limitation of the study related to the Zelen design of asking for consent after randomisation. This introduced the possibility of selection bias as those who consented to the two arms may have differed from one another in some way. However, in this trial, those consenting to problem solving had poorer prognostic markers at baseline than those consenting to usual care, which may add weight to the significant differences observed. The data suggest that although PST appeared to be no more effective than usual care in preventing repetition of self-harm among people presenting with self-harm for the first time, for those presenting with recurrent self-harm it may be more effective than standard care (Hatcher et al., 2011).

The second of the two trials evaluated an assertive outreach intervention following a suicide attempt. Patients were randomised to standard treatment or to the ‘assertive intervention for deliberate self-harm’ (AID) intervention. Standard treatment consisted of referral to relevant treatments following psychiatric evaluation (such as psychotherapy or treatment for alcohol abuse). The AID intervention involved case management with crisis intervention, problem solving, assertive outreach through motivational support and assisting participants to and from appointments to improve compliance. Data for repeated suicide attempts and death by suicide were recovered from hospital registration, medical records and self-reported data (Morthorst et al., 2012).

During a one-year follow-up, there was no difference in the number of suicide attempts between the AID and the standard care groups on the basis of either hospital records (20/123 vs. 13/120 respectively; OR = 1.60, 95% CI 0.76 to 3.38, \( p = 0.22 \)) or self-reported data (11/95 vs. 13/74 respectively; OR = 0.61, 95% CI 0.26 to 1.46, \( p = 0.27 \)). Analyses following imputation of missing data for the self-reported outcomes, or combining hospital with self-reported data, did not significantly alter results. Limitations of the evidence included:

1. The treatment available to those in the control group, which could potentially have lessened the relative impact of the AID intervention (although qualifying participants from both groups were able to access these sessions);
2. Differing levels of baseline anti-depressant use between groups may have been a source of bias (although adjustment for this did not indicate any);
3. The study may not have been powered to detect the smaller differences between groups present in the trial; and
4. Between hospital and self-reported data, which may have been a result of under-estimation or over-estimation of suicide attempts in self-reports.
Although the trials remain small in numbers, the results in Figure 5.1 (representing now seven trials with a total of 501 intervention and 555 control participants) show a trend towards favouring the use of problem solving for repetition of self-harm behaviour. Whilst this collection of trials provide a basis for future use of this therapy in the community, use of PST for treatment of self-harm in the prison environment, remains untested. To address this gap in the literature, we describe the methodology of a new study of PST for offenders of repeat self-harm behaviour in four different prison settings across the UK.

Feasibility of implementing problem solving in prisons

The principal aim of the study is to develop a problem-solving intervention to reduce self-harm in prisons. The intervention has two components: a training programme, the aim of which is to equip all wing staff in the prison with a basic understanding of the problem-solving approach, and a further, more detailed training for staff who deal with prisoners considered at risk of self-harm or suicide, to assist them in delivering a more prisoner-centred support for prisoners so identified. The study will take place in four prisons across the UK, and the findings will be used to determine the feasibility of a large-scale evaluation of the intervention. The study has a number of objectives:

1. An assessment of the feasibility and acceptability of the problem-solving intervention, using qualitative methods;
2. An assessment of the feasibility of undertaking an evaluation of the intervention using changes in prison behaviour as judged by routinely collected data and involving a quasi-experimental (interrupted time series) design;
3. An assessment of the feasibility of collecting individual outcomes for those prisoners who were identified as being at risk of self-harm or suicide and received additional support from staff trained in problem-solving techniques as part of the project;
4. To follow prisoners on release to assess any further utilization of healthcare resources.

Four prisons in the North of England will provide a representative sample of staff and patients for inclusion in the study. For the staff training, the project team will invite all staff within each prison to participate, including management, probation, teaching and prison officers, chaplaincy, psychologists, specialist suicide prevention assessors and nursing staff. Data will be collected about the characteristics of staff that do and do not
complete the training to explore the reasons behind non-compliance with the program.

For the specialist intervention with at-risk prisoners, we will invite every patient under the care of the ACCT system while the intervention is being implemented. The ACCT system is currently used by all staff to provide a mechanism for monitoring and developing an individualised care plan with an individual who is thought to be at risk of self-harm behavior, suicidal or both. ACCT is prisoner centred and covers a number of stages that must be conducted within specific timescales. The ethos of the ACCT system focuses on the responsibility of all staff to identify and manage prisoners at risk of suicide, self-harm or both. Prison documentation notes that good staff/prisoner relationships are integral to reducing risk, and participation in regime activities, positive family and peer relationships and referral to appropriate specialist services such as mental health in reach, play a role.

The intervention

The intervention will be delivered and disseminated throughout each prison using two training phases and an implementation phase. Phase one will involve the delivery of a generic problem-solving intervention (Package A) to all staff, through a trained mental health facilitator. The mental health facilitator will have training in teaching methods and education in all skills and knowledge included in the training package. The generic staff training consists of two modular standalone training sessions each up to one hour in length. The first session will include an interactive skills-based session teaching the principles of problem-solving skills and containing a mixture of learning options, including group, individual and self-guided learning based on examples while at work. Between sessions, staff will be encouraged to use their new skills and provide a portfolio of examples for discussion in session two. Staff will be trained in groups of up to eight members. It is intended that this training would be sustained as part of the staff induction process once the research is complete. It will be assumed that all staff will have limited previous mental health training, and as such our intervention will be aimed at those with no prior knowledge or experience. This will ensure that all levels of staff experience will be considered.

Phase two will deliver a tailor-made specific intervention (Package B) to staff who are trained to deal specifically with prisoners at risk (suicide prevention coordinators and nursing staff). In the implementation phase,
staff will use the skills they have learnt with patients at risk, over a two-
month period in each prison. Specific problem-solving skills for suicide
prevention co-ordinators and nursing staff will last up to one hour. The
training will be taught in small groups or on an individual basis, depen-
dent upon the availability of staff working arrangements. The session
will focus on (i) improving the ability of staff to identify problem-solving
deficits, (ii) promoting coping strategies, and (iii) assessing triggers for
risk of self-harm. The session will involve a series of role plays with
actors playing the part of prisoners. Although paid actors will be used,
the feasibility of using other prisoners (currently trained through the
Listener scheme to help patients in crisis) will be explored as a way of
involving patients in the development of the package. For example we
will consult with prisoners on the development of the training materials,
consent forms and information sheets to ensure that they are appropriate
for use.

Suicide prevention coordinators and nursing staff will implement the
intervention with individuals identified at risk under the ACCT system.
This single 30-minute session will ensure that the total intervention will
be received by patients even if they transferred or released shortly short-
wards. The session will take place shortly after the first assessment using
the ACCT system. Subsequent ACCT meetings will include a repeated
15-minute session with the patient until the ACCT system is no longer
required to support the patient. This model will minimise attrition and
allow us to assess different levels of dosage and intensity of the inter-
vention delivered by staff. Patients will be given worksheets that will help
them think about their thoughts, feelings and actions prior to an incident of
self-harm behaviour. The worksheets and reinforcement of help-seeking
skills will form part of the care plan for the individual and will be subse-
quently followed until no further support is required. Evidence of treat-
ment fidelity will be monitored by evidenced documentation, including
reflection sheets and solution implementation.

A case study example

PST involves a number of stages starting with problem orientation, fol-
lowed by recognising and identifying problems, selecting and defining a
clear problem-generating solution, decision making, creating and imple-
menting an action plan and the process of reviewing progress. Throughout
the training, examples of case studies are used to demonstrate the different
possibilities of PST in action within a forensic setting.
Introducing James

The following case study, James, is unfortunately typical of many young men who end up in prison with a number of life problems and a series of risk factors linked to his self-harm behaviour. James is suddenly faced with a crisis that he finds particularly frustrating and difficult to cope with.

James is a 22-year-old man with a partner of one year. He has two children via previous relationships and a 6-month-old baby with his current partner. James is one of six siblings born to his father and stepmother. James's relationship with his parents was troubled from a young age, and his father would come home and beat James when drunk. His stepmother found it difficult to deal with his aggressive emotional outbursts, and James was excluded from school at age 11 for poor behaviour and emotional outbursts. He started to mix with a gang of older boys who were known in the area for committing petty crimes. James became involved in drugs at age 13 years and was caught by the police for burglary when he was 16 years old. He also had a series of relationships with older women, which led to a number of pregnancies resulting in two sons. James's stepmother was unable to control his behaviour and did not want him in the house anymore, so James was asked to leave. James went at first to stay with a friend but soon moved to a hostel. James found it difficult to get a job and quickly used crime to support his drug habit. His physical and mental health deteriorated dramatically and he no longer took care of his personal appearance. One day he took a concoction of drugs and alcohol, causing him to overdose, and leading to admission to Accident and Emergency. James was finally convicted for a series of burglaries and was sentenced to prison for the first time age 19 years. At an all-time low, James had no contact with his family and regularly self-harmed when he was feeling particularly stressed. In prison, James was placed in a shared cell and initially in a safe cell. Having settled into prison life, James felt angry and frustrated.

On a recent family prison visit James's partner told him that the council were planning to change their accommodation because he was no longer living with them in the house. The change in circumstances would mean that they may be moved outside of the local area.

James returned to the wing in a low mood, feeling inadequate and powerless to do anything about the change in circumstances. James 'kicks off' in his cell, and when wing staff intervene he blurts out his problem to his key officer.
Recognising and identifying problems

The training package begins with an introduction to the idea of recognising problems and trigger factors; the process of problem solving involves getting the client to identify thoughts, behaviours, feelings and physical symptoms associated with their particular problem. Selecting and defining a problem is helpful in turning ill-defined problems such as ‘my life is a mess’ into a well-defined problem that the client has control over. In James’s case, the problem is clearly defined. The next step is to generate a range of possible solutions.

Generating solutions

Facilitators are asked to work with a client to discuss what possible options are available to resolve or improve the situation. Brainstorming is a method of generating as many possibilities and alternative solutions to the problem without evaluating the potential usefulness. We re-join James at the point at which he is attempting to brainstorm his options and think of alternative ways to resolve his problem.

James felt daunted by trying out brainstorming. At first, he felt that nothing would help the situation. As James and his prison officer started to work together, he gained momentum with the situation and provided a number of different ideas that helped him feel more in control of the situation.

Problem: “My partner is being forced to move out of her house and is being moved away from the area, and I will not see my family every week at visiting time.”

- Ask my partner to ring the council and find out where she is moving to
- Arrange a specific time when they will be able to visit so I can look forward to the visit
- Get some photos of my baby and partner to put up in my cell
- Ring my partner more often
- Talk to prison staff to see if I can get extended visiting time when they come
- Focus on keeping myself to myself and not getting into trouble whilst in prison
- Plan the time I have in prison to keep me busy
- Ask if I can have extra jobs to do in the prison to keep my mind occupied
- Go to the prison gym and take part in some exercise
- Consider going to education to see if they have any courses I can attend
Decision making

Once the client has identified a number of potential solutions, the next step is decision making. In this stage, a more in-depth examination of the solutions allows the individual to weigh the advantages and disadvantages of potential solutions. We see James grouping his actions into different categories, ready to choose a final solution and develop an action plan.

When James looked at the initial selection to his brainstorm he decided to cross out several of the options. He thought they lacked feasibility and would have a negative effect on his well-being. Then, James grouped the remaining ideas into three categories:

- Activities to keep him busy
- Methods of organising time
- Strategies to manage stress

After thinking about the advantages and disadvantages of these possibilities, James decided that planning time in advance had the advantage of reducing his stress. James’s solution was first to speak to his personnel officer about contacting education and the jobs section within the prison to find out more about what opportunities were available to him. He thought there might be opportunities to keep him busy and organise his time. James also wanted to ring his partner to discuss the move location and ask her to send some pictures of the baby for his cell wall. He thought this would help with the stress and help keep his family in mind, even if he couldn’t see them so often. Overall, James thought the combination of these two strategies had a good chance of allowing him to feel better about his time in prison and seeing his family less.

Creating a SMART action plan

The final stages of problem solving involve the client implementing or carrying out an action plan. This should be a step-by-step process that is used to transform the chosen solutions into concrete actions. A SMART (Specific, Measurable, Achievable, Relevant, Time-bound) plan that is focused around when, where, whom and how is key to a successful plan. Identifying barriers to solving the problem needs to be addressed when the plan was not successfully carried out or did not solve the problem. As a facilitator, the important elements of the process also involve reviewing progress with the client to evaluate whether the plan is underway, whether
it is having the desired impact, whether any more needs to be done in relation to the problem and to understand the key areas which may need to be fine-tuned.

Summary

In summary, PST has been employed with a number of different community samples with some modest benefits, in particular with those who repeat self-harm. Although these trials show promising results, they are generally small in sample size and do not address the prisoner population. Despite the rate of self-harm being very high in the prison environment, little treatment has been provided to help people cope better with their problems. Repetition in the prison environment is a particular problem and, therefore, PST could provide some support to those who require some help. Our feasibility study will trial the use of PST in the environment, and the study will hopefully lead to the first large-scale trial in the UK of treatment for offenders who self-harm in prison. Lessons about the feasibility of the program and implementation of PST in this environment will help to pave the way for future research and its adaptation into the prison environment.

References


