**Abstract**

In recent years there has been growing interest in the use of sensory techniques to help with emotional regulation in adult mental health populations. This is against a backdrop of international policies aimed at reducing restrictive interventions and improving the effectiveness of de-escalation techniques. A sensory room was designed and implemented on a male adult acute psychiatric ward. Staff perspectives were sought to evaluate the effectiveness of the room in managing emotional distress; exploring staff awareness of a broader range of de-escalation strategies and what effect the room had on staff behaviours with respect to sensory interventions. A series of semi-structured interviews were carried out, analysed and grouped into themes. Three themes emerged: enhancing de-escalation, sensory interventions and impact on staff. Findings showed that increased awareness of sensory processing and use of sensory strategies such as the sensory room were perceived by staff to have a positive impact on reducing distress with male service users. Staff use of the room was also discovered to have benefits that included staff attending to their own emotional needs and the use of the room supporting reflective learning during critical incident debriefing.

**Key Words**

De-escalation, sensory room, mental health, emotional regulation

**Introduction & Background**

Consumer aggression, according to Lim et al (2017) is still a major issue for contemporary mental health service providers. According to Bowers (2014) staff responses to service user conflict in acute wards primarily consist of as required medication, physical restraint and seclusion. These are commonly referred to as coercive interventions (Watson et al 2014), and have been described as anathema to a recovery-focused approach to providing person centred mental health care (Huckshorn 2012).Internationally there is recognition of the deleterious effects of these interventions and drive to eradicate their use in contemporary mental health care. A national initiative was launched in the United States of America (USA) to eliminate the use of restraint and seclusion and promote a recovery focused model of care (New Freedom Commission on Mental Health, 2003). In Australia, a National Mental Health Commission (2012) was established to eliminate restraint and seclusion in mental health care. National guidance within the United Kingdom (UK) has been implemented to reduce the use of coercive interventions in adult acute mental health care (DH 2014),

De-escalation techniques are defined as psychosocial interventions which focus upon the recognition of the early signs of anger and aggression together with an understanding of their likely causes and the use of techniques to distract, calm, promote self-control, and reduce the risk of violence and are recommended in the UK to be used as a first line intervention for violence and aggression. (NICE 2015). Price et al (2018) have classified de-escalation interventions into three broad categories: support, non-physical control such as instructions and deterrents, and physical control i.e. coercive approaches. However, Gaynes et al (2016) undertook a comprehensive systematic review of de-escalation using quantitative methods and found that there was limited evidence for the efficacy of the interventions. Similarly, Price and Baker’s (2012) thematic analysis of de-escalation showed a lack of consensus of what effective de-escalation was. Lavelle et al (2016) found that a significant proportion of de-escalation interventions were unsuccessful and were associated with lack of staff confidence with higher risk service users which resulted in further use of restrictive interventions. Several studies have shown that de-escalation techniques are infrequent in achieving their intended outcomes for several reasons: non-significant changes in staff knowledge (Cowin et al 2003); limited benefits of therapeutic interventions such as distraction and practical support following as required medication (Curtis et al 2007); inadequate attention afforded to interpersonal interventions, self-awareness and staff attitudes relating to stereotyping of service users (Price and Baker 2012); staff conceptualisations based upon either assault cycle or an arousal model (Hallett and Dickens 2015).

The impact of restrictive interventions have been associated with trauma (Brophy at al 2016) whereby restraint and seclusion can result in the re-experiencing of early traumatic experiences. Such approaches disempower service users which can be experienced as humiliation and fear (Meehan 2000).

Sensory approaches have been advocated as an alternative to seclusion and restraint (Champagne and Stromberg 2004). A frequent application of this has been through use of sensory rooms that can modulate sensory experience by altering the environment in terms of light, sound, touch, movement, taste and aroma. Such approaches have been found to be useful in learning disability settings where use of sensory rooms reduced disruptive behaviour in people with autism (Fava and Strauss 2010). A 6 week programme consisting of both Individual and group interventions of 1 hours duration each was implemented in psychiatric intensive care settings, and resulted in self-reported reductions in arousal patterns after using the room (Gardner 2016). Wiglesworth and Farnworth (2016) report that female service users in forensic settings engaging with the sensory room had significant reductions in stress.

It has been suggested that sensory interventions have a role in moderating affect, thereby allowing cognitive reasoning and more adaptive behaviours to be achieved (Sutton *et al*. 2013).

Following a study on the use of a sensory room on a Psychiatric Intensive Care Unit, Smith and Jones (2014), argue that dedicated spaces which promote recovery (such as sensory rooms) should have as much priority as spaces for seclusion. Some studies into sensory-based approaches have shown an effect in reducing distress, reducing use of as required medication and some reduced use of seclusion and restraint (Champagne & Stromberg 2004; Cummings *et al.* 2010; Knight *et al* 2010; Lee *et al*. 2010; Chalmers *et al*. 2012; Novak *et al*. 2012; Björkdahl *et al* 2016). The importance of providing choice for staff and service users in terms of selection of de-escalation interventions is also consistently highlighted throughout these studies as well as improvement in quality of experience during admission and quality of communication with ward teams.

Scanlan and Novak (2015) conducted a scoping review that highlighted the usefulness of sensory approaches in supporting self-management of distress. There was less consistent data around reduction in seclusion and restraint when used in isolation. Scanlan and Novak (2015) assert that some identified benefits of using sensory approaches is that they are “non-invasive, self-directed and empowering interventions that may support more recovery-oriented and trauma-informed practice.” (p278). Although the studies that were included in the review considered a range of outcomes and methodologies, all of them linked sensory interventions to positive outcomes. One of the gaps identified in this scoping review was the scarcity of qualitative data with only two of the papers (Smith & Jones, 2014; Sutton *et al.* 2013) utilising a qualitative approach. Since then Björkdahl *et al* (2016) and Wiglesworth & Farnworth (2016) have also produced papers exploring staff and patient perspectives in more depth. This evaluation focuses on staff perspectives and experience of sensory interventions. The aims of this study were to further explore staff perspectives of how the sensory room enabled service users to manage their emotional distress and arousal within a male adult acute inpatient ward, and to explore the impact of the project on the staff team.

**Sensory Room (Chill Out Room) Project**

A sensory room was developed on an 18 bed adult male acute psychiatric ward. This was done following a review of literature and extensive consultation with service users and staff. Plans for how to set up the room were formulated and reviewed at community meetings and staff meetings. Service users opted to call the space the “Chill Out Room”. It was agreed that the room would be for everyone’s wellbeing therefore staff would be able to use it too. Whilst it was acknowledged that service users would always be given priority for room use, staff were encouraged to use the room during their break times or following a distressing incident if they needed some time out. It was hoped that as well as looking after staff wellbeing, it would encourage them to promote use of the room to service users. The room offered a choice of seating including a rocker chair and a bean bag chair with weighted cushions; a sound system with noise cancelling headphones; a vibration pillow; a selection of lighting options and tactile fidget items. Low tech, low budget choices were made where possible so that service users could afford to access similar strategies at home once they have left hospital.

All service users were offered an induction where time was spent identifying their sensory preferences. A record was made of their preferred seating lighting and music choices. Often people created a “chill out playlist” on their own devices for use in the room and at other times, for example, before going to sleep. Also discussed were the various ways in which they could benefit from using the room, such as, practicing relaxation, managing arousal levels, alternative to as required medication, managing cravings, and a break from the ward or for enjoyment. These options cover both proactive and reactive ways of using of the room. Initially the room was used under staff supervision only. However, following review it was changed to allow people supervised or unsupervised access depending on individual risk. This increased usage of the room by removing a barrier of staff availability. The room was accessible at any time.

There is evidence to suggest that participating in well-designed education leads to increased use of sensory rooms (Martin & Suane, 2012) so a training package was developed and delivered by the occupational therapist to staff of all disciplines on the ward. Some background theory was taught to raise awareness of sensory processing and individual differences. Champagne (2004) highlighted the importance of understanding individual sensory processing patterns and reactivity in adults to help alleviate distress when acutely mentally unwell. Practical interventions were taught which could be delivered in the sensory room or elsewhere on the ward. For example, use of proprioceptive input such as wall press ups, gardening, kneading dough, to help regulate emotion (Blanche & Schaaf, 2001). This focus on becoming aware of individuals’ sensory preferences and equipping staff with knowledge around what sensory strategies can support emotional regulation provided a context for the introduction of the sensory room and aimed to give a more robust understanding of the variety of ways in which it could be used.

The rationale for developing the room was to provide a healthy therapeutic, supportive and safe environment for individuals to practice self soothe strategies; support people with emotional regulation during periods of distress and crisis; help achieve and maintain functional levels of arousal; improve the quality of experience within the acute ward environment; teach service users strategies to manage distress whilst in hospital and following discharge; provide a supportive space to promote staff wellbeing.

The project was led by the occupational therapist though all disciplines were involved in the development and promotion of the room and the facilitation of the room most frequently sat within the nursing team.

**Methods**

Ethical approval for the study was obtained from the Faculty of Health and Life Sciences Ethics Committee, Northumbria University. The study was situated within an 18 bedded adult acute inpatient mental health ward in a large mental health trust. A purposeful sampling method was used (Patton 2002) which selects cases that are information rich, and enables greater understanding of the issues of relevance to the purpose of the research (Coyne 1997). Purposeful sampling involves the identification of individuals who are either knowledgeable or have experience of a phenomenon of interest (Cresswell & Plano Clark 2011), in this case the participants had attended the initial training in the use of the Chill Out room and had worked with service users who had used the Chill Out room. Thus a criterion based sampling strategy (Palinkas et al 2013) was used to identify potential participants which was drawn from mental health workers who worked in the ward. Staff were regularly involved in the project by regular staff meetings and written information with the project team (which consisted of the advanced occupational therapist, clinical nurse lead, ward manager, and clinical psychologist) on the development and implementation of the project. This has involved staff and service user participation on the name of the room, its location on the ward and induction training for staff on how to use the room with service users. Permission to access the ward was provided from the General Manager of the service. Recruitment posters were put on staff notice board promoting the study. Information sheets were made available to potential participants informing them of the study aims and methods. All Staff (n=30) were invited to participate in the study by way of posters and emails sent to ward staff by the ward manager. Consent forms were completed with all participants’ and their data were given a code to ensure confidentiality and anonymity (Green & Thorogood 2014). Qualitative data was collected from mental health workers (MHW) employed in the ward who responded to the invitation to participate in semi-structured interviews. The interviewer was external to the service and had not been involved in delivering training or the implementation of the project. The interviews were informed by an interview guide, which helped to obtain similar types of data from participants (Doody& Noonan (2013). All interviews were recorded on a digital recorder. Individual interviews were conducted until no new data emerged from the participant’s responses and data saturation (Francis et al 2010) was achieved. To ensure the accuracy of the data collected each participant reviewed their individual transcript. Member checks are an important strategy to improve a study’s credibility (Guba & Lincoln 1989)

**Data Analysis**

Data was analysed using the thematic analysis method of Braun and Clarke (2006) and the analysis was driven by the data rather than prior theoretical concepts. The aim was to provide a rich description of the participants’ accounts, exploring patterns and meanings within the data. This involved the following phases: 1) all data was transcribed verbatim and each script was read several times in order to become familiar with the data, 2) Initial codes were generated from each transcript and these were then, 3) collated into themes, which were, 4) reviewed by the authors and 5) subsequently defined and named, followed by, 6) writing of the paper. Both authors read the transcripts independently in order to immerse themselves in the data, looking for connections within and between each scripts. This was facilitated by annotating the text with provisional ideas (Usher et al, 2017). Codes were arrived at independently which were jointly reviewed and agreed by the authors. Similarly themes were identified and defined and a thematic map was constructed. This was then used to check themes in individual data extracts and across the whole data set. N Vivo software (Version 10, QSR International 2017) was used to further facilitate the data analysis process.

**Results**

6 mental health workers participated within the study which comprised of a specialist occupational therapist, three registered mental health nurses, a ward activity worker and the clinical nurse manager for the acute wards in the hospital setting. Three main themes were identified in the study. These related to de-escalation, use of the Chill Out room and impact on staff. The themes, sub themes and codes are shown in table 1 below:

**[Insert Table 1 here].**

**Theme 1 Enhancing De-escalation:**

When service users presented in a distressed state de-escalation was offered as the initial intervention. This comprises a series of interventions beginning with affording the service user time and space to express their needs. One participant (MHW5) described how this had improved because of the Chill out room:

“it’s about knowing your patients, if your key nurse was around they had built up most rapport with the patient so we would look at strategies so if they became emotionally unstable or an increase in anxiety, or the phrase we use in the Chill Out room: an increased state of alertness, we look at care planning for what those strategies would be but those would be limited before we had the Chill Out room”

The Chill Out room provided an opportunity to explore individual sensory preferences and proactively identify strategies for managing distress. An important aspect of the de-escalation process was of problem clarification and validating the service user’s experience and as MHW2 reports:

“I find it helpful when people are getting really agitated and aggressive to find out exactly what the problem is, what they want us to do to help, to stay quite calm, obviously you’ve got to be boundaried and let people know that I won’t be spoken to like that, but we can work something out.. would this be helpful, would that be helpful, sometimes just to validate what people are saying... how they are feeling and looking at ways at how you can support them really”.

Within this account, there are a range of interventions being used by the nurse to understand the cause and trigger for the distress and this seemed an important intervention before determining which interventions to facilitate coping. This is further demonstrated by another participant (MHW5)

“trying to get to the root cause of what the problem was and try and resolve and if not resolve try and mediate some negotiation and also looking at the client or staff mix that the patient was having a particular difficulty with then making sure we remove that in relation to that.”

This is further reinforced by MHW1 who further articulates the use of the Chill Out room within the context of an empathic and solution orientated approach:

“it’s really important to understand where the person is coming from…… so getting them in an environment where there is a lower stimulus, so whether that’s a side room, whether it’s the Chill Out room, their bedroom, not often their bedroom but sometimes that where the patient prefers, and just trying to get to the problem and offering solutions to it but not focusing too much on the problem, trying to be solution focused, that how I try and come across myself.”

**Theme 2 Sensory Interventions**

The room was used for a range of purposes and a range of equipment was available. MHW3 reflected on some of the popular equipment choices:

“… *the (weighted*) chair, most definitely, most of the optic lamps with the main light off... the music and the tranquil sounds with the headphones are a popular choice... every patient likes to use the headphones cos that’s basically the thing that’s really selling the Chill Out room because what the headphones enables the patients to do essentially is to enter a new world of .. it totally blocks out the sound that allows them to escape and ultimately results in them chilling out cos they can’t hear the sounds other than that of the headphones.”

How this is applied with a service user distressed by voices is further explained by MHW1:

“I took him to one side and had the one to one , he remained quite fixated about the medication but we stuck with it, and got to the source of the problem about how the voices were quite intense at that time , he was suffering an increased level of distress ... And it was him actually that suggested the use of the Chill Out room… so I went down and got it all set up … so I went down and sat with him now there’s sound cancelling headphones in there , so part of his care plan was that he liked those on .. and set all of the lights up to how he liked them... and his care plan was for him not to engage with staff at all when he was in but just to be there… so he basically just utilized the resources that were in there…. When he came out he did report that his level of distress was lower that his level of anxiety was lower………”

The impact of the Chill Out room in helping service users manage emotional distress was also identified by participants as a positive experience:-

“Sometimes it might take the heat out a situation and words aren’t needed in a certain situation, to just sit down and just have these special lights on sit in the (*weighted*) chair and listen to certain sounds rather than hearing someone telling you the same stuff, like over and over again.” (MHW3)

The use of the Chill Out room has been utilised not only to de-escalate experiences of agitation but has also been used to help service users prepare for stressful events such as attending a mental health tribunal as MHW5 explains:

“what I like about this technique is that you are helping to facilitate coping strategies for not just on the ward but for prior to going to a tribunal or for preparing to go to a meeting which was quite emotional we were able to take them into the room for preparation and have been able to see an hour later to control their anxiety levels.”

There were also several references to a reduction in the reliance on medication through providing the alternative of the Chill Out room.

“he would become really distressed and ask to go off the ward because he was going to kill himself and he found that the Chill Out room really worked, so he’d use it as much as possible and it really worked for him, you could see him getting really worked up and he’d go in and even when he wasn’t worked up he would use it and he said it was even better than prn” (MHW2)

The Chill Out room was described as a safe space within the ward as it became a sanctuary from the busy ward environment and the intensity of emotional distress felt by service users.

“… He got himself into a destructive cycle, so it was taking himself out of that into this place where his thoughts would calm … he would listen to the music and it was really helpful for him... he said … it felt you were in a different world.” (MHW2)

**Theme 3 Impact on Staff**

In addition to use of the room by service users the room has also been valued by staff as an essential resource and has a restorative function to support the staff who work in a busy acute ward. This expression of support was demonstrated by MHW5 who observed the effects of the Chill Out room when it was used for a debrief following a serious incident on one of the other units

“for debriefing situations in the past we have used the conference room and we tried it out when I facilitated a debrief for some of the other ward teams and it was particularly difficult time … it was just around their sensory needs but it was using the rocking chair, the (*weighted)* chair, and the darkened areas, it just helped people to relax and relate a little bit better”

In this context the use of the room helped people to reduce their anxiety where they were able to use the equipment informally, attend to their own sensory needs, and develop their own sense of control which enabled them to participate more effectively in the meeting. This support for staff was further reported by MHW6 who also mentioned that staff use the room to further create a sensory space for themselves during break times.

“Actually people have seen the benefit, and staff have also benefitted from it from it, a space that they have enjoyed for some down time or for ... if there has been an incident on the ward to have some time out for themselves to use it like anyone else would to have that space to return to that calm alert state, to debrief after an incident it’s kind of multi-functional in terms of the benefits to be had.”

Staff were overall very positive about the use of the room and some of these endorsements came about because of the training programme that all staff including the multidisciplinary team were involved with:

“But I think that the training was really important as well that all staff were trained in a short period of time and it included the mdt it wasn’t just nurses, it was the doctors, exercise therapists, the occupational therapy team, we had our junior doctors involved, psychologists, all involved in the training so that all that were involved and the team could sell it to the patients or let them understand what it was all about , but that was very concentrated over a 2 week period rather than a drib and drabs approach as everybody was enthusiastic” (MHW5).

I found it fine...I did it with (*the occupational therapist*) it was quite interesting really and it was nice how we could try the equipment out as well. I know staff who use it on their breaks. (MHW2)

**Discussion**

The experience of clients’ emotional distress in terms of anger, aggression and self-harm is in keeping with expected patterns of presentation within a male gender ward environment (Lloyd et al 2014). That the clients were open to and engaged with the application of sensory approaches is an important finding in this setting as previous research in this area had highlighted the use of sensory approaches, predominantly with women in both the early adoption (Champagne & Stromberg 2004) and contemporary use (Champagne et al 2015) of sensory interventions where men are underrepresented in clinical studies. The use of sensory approaches in male environments should be considered as part of their care plan as possible gender biasing may have a role in staff selection of interventions to reduce violence and aggression with male service users.

Prior to the use of the sensory room de-escalation focussed upon a problem solving and solution focused approach to reducing arousal. These interventions are underpinned by a learning philosophy related to an instructional model (Keane & Dixon 2001). However, such interventions can be difficult for clients to apply when emotional arousal is increasing in intensity (Sutton et al 2013). The use of sensory approaches provide an opportunity for clients to directly experience and notice qualitative differences in sensory input which can have a direct effect upon the emotional arousal experienced. This evaluation has found that the use of sensory approaches in the Chill Out room has added to the nurses’ repertoire of de-escalation interventions and consideration of individual sensory preferences has become a key part of formulation and distress management planning during the assessment process. The use of the sensory room in assisting clients to manage their emotional distress is in keeping with other research studies in this area of practice (Bjorkdahl *et al* 2016, Scanlon & Novak 2015, Sutton *et al* 2013).

The application of sensory approaches with staff was a key finding from the study. Staff utilised the sensory room in break times and also for supervision and during critical incident debriefs suggesting that the use of the sensory room is an important resource to rejuvenate staff who work in busy clinical environments and for them to attend to their emotional needs before reflective learning can occur. Involving whole staff teams in the training and development of the sensory room is consistent with other research in this area that increased staff training in sensory interventions is associated with an increase in service user uptake of interventions (Martin& Suane 2012).

**Limitations and Future Research**

This was a small-scale evaluation of the use of a sensory room in a male adult acute inpatient ward. Data was obtained from staff who worked on the ward both prior to and after implementation of the sensory room. A limitation of this study is its scale as it focuses on the experiences of a single ward. A larger scale study across multiple wards would be helpful.

No patient related data was collected as part of this study and it would be useful to collect service user narratives of how sensory interventions supported their recovery during their inpatient admission.

In addition the use of service user data post discharge to determine both the range of sensory interventions and the frequency of their continued use would also help to evaluate whether the use of sensory interventions are incorporated into service users’ coping and self-management strategies to manage their emotional distress. Further research is required in this area.

The training of staff in the sensory interventions was mainly related to the use of the equipment and an awareness of sensory processing and it may be important to expand this awareness and use of sensory interventions to other training initiatives such as De-escalation training.

**Conclusion**

Use of a sensory room along with increased awareness within the staff team of sensory preferences and sensory strategies appears to provide a range of benefits to both service users and staff in an acute mental health setting. The use of sensory interventions are applicable to both staff and service users and they appear to have a valuable role to play in helping service users manage their emotional distress. There is a gap in the literature around qualitative studies articulating service user experiences and perceptions of sensory interventions in adult acute mental health inpatient settings. Staff involvement and whole team training in the interventions led to staff positively endorsing the use of the room to service users and in increased use of the room by staff themselves.

**Relevance for Clinical Practice**

This evaluation has demonstrated the important role that sensory strategies play in mediating emotional distress and it may be important to implement sensory awareness and interventions into other training initiatives such as De-escalation training. This would provide staff with a fuller understanding of the strategies and enable them to formulate more personalised and holistic interventions to cope with emotional distress.

**References**

Björkdahl, A., Perseius, K., Samuelsson, M. and Lindberg, M.H. (2016) Sensory rooms in psychiatric inpatient care: staff experiences. International Journal of Mental Health Nursing 25(5), 472-479

Blanche, E.I. and Schaaf, R.C. (2001) Proprioception: the cornerstone of sensory integrative intervention. In: Smith Roley, S., Blanche, E.I. and Schaaf, R.C. Eds. (2001) Understanding the nature of sensory integration with diverse populations. Austin. Pro-ed. 109-124.

Bowers, L. (2014) Safewards: a new model of conflict and containment on psychiatric wards. Journal of Psychiatric and Mental Health Nursing, 21, (6), pp499-508

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. Qualitative Research in Psychology, 3 (2). pp. 77-101. ISSN1478-0887 Available from: <http://eprints.uwe.ac.uk/11735>

Brophy, L.M; Roper, C.E; Hamilton, B.E; Tellez, J.J; McSherry, B.M (2016) Consumers’ and their supporters’ perspectives on barriers and strategies to reducing seclusion and restraint in mental health settings. Australian Health Review, 40, 599–604

Chalmers. A., Harrison, S., Mollison. K., Molloy. N. & Gray. K. (2012), Establishing sensory-based approaches in mental health inpatient care: a multidisciplinary approach. Australasian Psychiatry, 20(1), 35-39

Champagne, T., & Stromberg, N. (2004). Sensory approaches in inpatient psychiatric settings: Innovative alternatives to seclusion and restraint. Journal of Psychosocial Nursing and Mental Health Services, 42(9), 34-44.

Champagne, T., Mullen, B., Dickson, D., Krishnamurty, S. (2015) Evaluating the Safety and Effectiveness of the Weighted Blanket With Adults During an Inpatient Mental Health Hospitalization. Occupational Therapy in Mental Health, 31,(3), pp 211-233

Cowin,L; Davies,R; Estall,G; Berlin.Y; Fitzgerald.M; Hoot,S (2003) De-escalating aggression and violence in the mental health setting. 12(1) pp 64-73

Coyne, IT (1997) Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries? Journal of Advanced Nursing, 26, pp623-30

Cresswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed method research (2nd Ed.). Thousand Oaks, CA: Sage.

Cummings, K.S., Grandfield, S.A., & Coldwell, C.M. (2010), Caring with Comfort Rooms: Reducing Seclusion and Restraint Use in Psychiatric Facilities. Journal of Psychosocial Nursing and Mental Health Services, 48(6), 26-30.

Curtis, J; Baker,J.A; Reid,A.R (2007) Exploration of therapeutic interventions that accompany the administration of p.r.n. (‘as required’) psychotropic medication within acute mental health settings: A retrospective study. International Journal of Mental Health Nursing. 16(5) pp318-326

Department of Health (2014) Positive and Proactive Care: reducing the need for restrictive interventions. London, Crown Publications

Doody,O & Nonnan,M (2013) Preparing ad conducting interviews to collect data. Nurse Researcher, 20(5), pp28-32

Fava,L & Strauss,K (2010) Multi-sensory rooms: Comparing effects of the Snoezelen and the Stimulus Preference environment on the behavior of adults with profound mental retardation. Research in Developmental Disabilities, 31pp160-171

Francis,JJ, Johnston,M; Robertson,C; Glidewell,L; Entwistle,V; Eccles,M.P; Grimshaw,J.M (2010) What is an adequate sample size? Operationalising data saturation for theory-based interview studies. Psychology and Health,25 (10) pp1229-1245

Gardner,J (2016) sensory modulation treatment on a psychiatric inpatient unit. Journal of Psychosocial Nursing and Mental Health Services. 54(4) pp44-51

Gaynes BN, Brown C, Lux LJ, Brownley K, Van Dorn R, Edlund M, Coker-Schwimmer E, Zarzar T, Sheitman B, Weber RP, Viswanathan M, Lohr KN. (2016) Strategies to De-escalate aggressive behavior in psychiatric patients. AHRQ Comparative Effectiveness Reviews. Rockville (MD): Agency for Healthcare Research and Quality (US); Report No.: 16-EHC032-EF.

Green,J & Thorogood,N (2014) Qualitative Methods for Health Research, 3rd Edition. London, Sage.

Guba, E. G., & Lincoln, Y. S. (1989). Fourth generation evaluation. Newbury Park, CA: Sage.

Hallett,N & Dickens,G.L (2015) De‐escalation: A survey of clinical staff in a secure mental health inpatient service. International Journal of Mental Health Nursing, 24(4) pp 324-333

Huckshorn, KA (2012) reducing seclusion and restraint use in mental health settings: a phenomenological study of hospital leader and staff experiences. PhD Dissertation , Capella University.

Keane,B & Dixon,C (2001) Caring for People with Problem Behaviours: A Basic Practical Text for Nurses, Health Workers and Others Who are Learning to Manage Difficult Behaviours. Melbourne, Ausmed Publications

Knight, M., Adkison, L., & Stack Kovach, J. (2010), A Comparison of Multisensory and Traditional Interventions on Inpatient Psychiatry and Geriatric Neuropsychiatry Units. Journal of Psychosocial Nursing and Mental Health Services, 48(1), 24-31.

Lavelle,M, Stewart,D,James,K, Richardson,M, Renwick,L, Brennan,G, Bowers,L. (2016) Predictors of effective de-escalation in acute inpatient psychiatric settings. Journal of Clinical Nursing, Vol 25,No15-16,pp2180-8

Lee. S.J., Cox. A., Whitecross. R., Williams.,& Hollander. Y. (2010) Sensory assessment and therapy to help reduce seclusion use with service users needing psychiatric intensive care. Journal of Psychiatric Intensive Care, 6(2), 83-90.

Lim,E; Wynaden,D & heslop,K (2017) Recovery-focussed care: How it can be utilized to reduce aggression in the acute mental health setting. International Journal of Mental Health Nursing, 26, pp445-460

Lloyd,C; King,R & Machingura,T (2014) An investigation into the effectiveness of sensory modulation in reducing seclusion within an acute mental health unit. Advanced in Mental Health. 12,1, pp93-101

Martin. B.A., & Suane, S.N. (2012) Effect of training on sensory room and cart usage. Occupational Therapy in Mental Health, 28, 118-128.

Meehan T, Vermeer C, Windsor C.(2000) Patients’ perceptions of seclusion :a qualitative investigation. Journal of Advanced Nursing, 31: 370–7.

National Institute for Health and Clinical Excellence (2015) Violence and Aggression Short-term management in mental health, health and community settings. Updated edition. NICE Guideline NG10. London . The British Psychological Society and The Royal College of Psychiatrists.

National Mental Health Commission (2012) A Contributing Life: the 2012 National Report Card on Mental Health and SuicidePrevention. Sydney

New Freedom Commission on Mental Health (July 22, 2003). Achieving the Promise: Transforming Mental Health Care in America (Report). Rockville, MD: SAMHSA

Novak, T., Scanlan, J., McCaul, D., MacDonald, N. & Clarke, T. (2012) Pilot study of a sensory room in an acute inpatient psychiatric unit. Australasian Psychiatry, 20 (5), 401-406.

Palinkas,L.A; Horwitz,S.M; Green,C.A; Wisdom,J.P; Duan,N; Hoagwood,K (2015) Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. Administration Policy Mental Health 42:pp 533–544.

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, CA: Sage.

Price,O, Baker,J (2012) Key components of de‐escalation techniques: A thematic synthesis. International Journal of Mental Health Nursing, 21,(4), pp 310-9

Price,O, Baker,J; Bee,P & Lovell,K (2018) The support-control continuum: An investigation of staff perspectives on factors influencing the success or failure of de-escalation techniques for the management of violence and aggression in mental health settings. International Journal of Nursing Studies,77,pp197-206

QSR International (2017) NVivo Software version 10. http://www.qsrinternational.com/

Scanlan, J.N., & Novak, T. (2015) Sensory approaches in mental health: A scoping review. Australian Occupational Therapy Journal, 62, 277-285.

Smith, S., & Jones, J. (2014). Use of a Sensory Room on an Intensive Care Unit. Journal of Psychosocial Nursing and Mental Health Services, 52(5), 22-30.

Sutton, D., Wilson, M., Van Kessel, K. & Vanderpyl, J. (2013) Optimizing arousal to manage aggression: A pilot study of sensory modulation. International Journal of Mental Health Nursing, 22, 500-511.

Usher,K Jackson,D; Woods,C; Sayers,J; Kornhaber,R; Cleary,M (2017) Safety, risk, and aggression: Health professionals’ experiences of caring for people affected by methamphetamine when presenting for emergency care.International Journal of Mental Health Nursing. 26,pp437-444

Watson,S; Thorburn,K; Everett,M; Fisher,K.R (2014) Care without coercion – mental health

rights, personal recovery and trauma‑informed care. Australian Journal of Social Issues Vol.49 No.4,pp529-553

Wiglesworth, S. & Farnworth, L. (2016) An Exploration of the use of a sensory room in a forensic mental health setting: Staff and patient perspectives. Occupational Therapy International, 23, 255-264.