Sensory Modulation in Acute Mental Health Wards: A Qualitative Study of Staff and Service User Perspectives

Karen Moore Notes on article 6/1/2016 – Support for the Use of Sensory Rooms

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Sutton, D., & Nicholson, E. (2011). Sensory modulation in acute mental health wards: A qualitative study of staff and service user perspectives. Auckland, New Zealand: Te Pou o Te Whakaaro Nui.
http://aut.researchgateway.ac.nz/bitstream/handle/10292/4312/Sutton%20sensory%20modulation%20in%20acute%20mental%20health%20wards.pdf?sequence=6
retrieved 5/11/2016

Further information on the study can be found at:
Te Pou o te Whakaaro Nui (2010) Impact of sensory modulation in mental health acute wards on reducing the use of seclusion. Auckland. http://www.tepou.co.nz/resources/impact-of-sensory-modulation-in-mental-health-acute-wards-on-reducing-the-use-of-seclusion/73
Retrieved 1/27/2016

Related article on these same studies

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.

This report summarizes the findings of the qualitative findings of a pilot study on the use of sensory modulation in New Zealand acute mental health services. It is part of a larger initiative of the Ministry of Health to reduce the use of seclusion and restraint. Sensory modulation was identified as a potential treatment approach for clients who are distressed, agitated and potentially aggressive as well as an alternative to coercive actions. It was felt that more research was needed. This study reflects the collaboration of Te Pou (national center for evidence based workforce development for mental health, addictions, and disability sectors in New Zealand), Occupational Science and Therapy Department at Auckland University of Technology, and the mental health inpatient units of four district health boards.

The sensory modulation approach used on the four units studied included sensory based equipment, strategies, and environments to help people optimize emotional levels and engagement in everyday life. The study objectives were to:

- understand service users experience of using sensory modulation for de-escalation of distress
- explore staff members perspectives on the use of sensory modulation
- identify facilitators and barriers to implementing sensory modulation in acute mental health wards   (Sutton & Nicholson, 2011, p.3)

The study was piloted on one young person's and three adult inpatient units. A dedicated sensory room was created and equipped at each site and clinicians were trained in the theory and practice of sensory

modulation. Equipment included a massage chair, rocking chair, beanbag chair, soft blankets, weighted blankets, weighted soft toys, animals, various stress balls, portable audio and DVD players with relaxing sounds, music and scenes, basic aromatherapy diffuser, scented hand creams and adjustable colored lighting. While most interventions occurred in the sensory room itself sometimes sensory items were brought onto the ward to accommodate clients, especially on the nearby high acuity unit that did not have access to the sensory room. It was a requirement that staff accompany users while in the room and it was their job to orient people to the sensory modulation approach and items and to facilitate proper use and good choices.

Participants in the study were volunteer users and staff who had experienced the use of sensory modulation approaches. Key outcomes were drawn from their accounts obtained by interviews; findings supported sensory interventions as being effective in modulating distress and promoting calm (Sutton & Nicholson, p. 3).

In the executive summary seven aspects were noted in patient accounts as key to the effective use of sensory modulation process as users shifted attention to their bodies, the immediate environment, the sensory experience of the room and equipment as well as receiving the supportive presence of staff.

- Creating a sense of safety
- Soothing through sensory input
- Distracting attention from distressing thoughts, emotions and perceptions
- Stabilizing or "grounding" through sensory input
- Creating positive associations
- Creating a sense of control
- Supporting expression and release of thoughts, emotions, and energy

According to the executive summary the major outcomes in terms of service users were:

- **"Sensory modulation was perceived as an effective tool for inducing a calm state in the majority of the people who used it (p.3)."**
- **"Sensory modulation supported the rapid building of trust and rapport for both service users and staff members (p. 3)."**
- **"Sensory modulation facilitated the development of service users' self-management, increasing their awareness and ability to regulate their own emotional levels (p.3.)"**

Background

Sensory modulation uses sensory activities and equipment, behavioral strategies and modifications of the physical and social environment to help regulate emotions and responses. Effective practice increases service users awareness of sensory preferences and sensitivities and supports management of arousal through the use of sensory strategies. Interventions must consider users context, age, cognition, abilities, strengths and trauma history (Lebel, Champagne, Stromberg & Coyle, 2010; Sutton & Nicholson 2011). Components include sensory screening and assessment, exploration of sensory preferences, development of sensory diets, use of sensory activities and equipment, modification of the environment

and education of clients, family and care providers (Champagne, 2003, 2006; Champagne and Stromberg, 2004; LeBel et al, 2010; Lebel & Champagne, 2010).

Insights from Staff and Service Users on the Value of Sensory Approaches

Participants commented that the use of the sensory room and sensory modulation approaches changed their experience of being on the ward in a very positive way. Staff commented that the ward now has a nice feel to it compared to other wards.

Both staff and participants reported sensory modulation as a useful tool to add to existing options for calming distress. Specific examples were given for usefulness of the sensory room and activities for the following challenges:

- Urge to self-harm
- Flashbacks
- Elevated mood
- Hearing voices/low mood
- Anxiety
- Dissociation
- Confusion/disorientation

Reported effectiveness by staff varied according to staff experience, level of training and organizational culture and policy affecting application. Despite variations there was a clear perception that sensory modulation helped calm most people who used it.

Length of perceived effectiveness of the interventions varied, most agreed it was not long term, some reported half a day but there was definite agreement that it **lasted long enough to engage in something more restful, constructive or therapeutic.**

A key theme of service users and staff was that a **dedicated space for calming was an important part of the sensory modulation process**. The sensory room provided a place of refuge and safe retreat and also relaxation. This space was described as less clinical, less prone to interruptions and away from the stress of the ward. Feelings of safety and security were augmented by wrapping up in a soft blanket, use of the weighted blanket or nestling in a beanbag chair.

Distraction was described as another important feature of using the sensory room and equipment. This was especially important for people experiencing anxiety, urges for self-harm and auditory hallucinations. Focusing on the here and now and sensations such as the feeling of the massage chair redirected attention away from distressing thoughts and symptoms.

A related common theme was that service users experienced **strong sensory input such as the massage chair as grounding and stabilizing**. Descriptive words **included feeling grounded and collected**. Being brought back to the present time and space lead to integration; there was a **shift from feeling disconnected and overwhelmed to feeling connected and centered**. This stabilizing effect was one of the strongest themes.

Another important aspect of the use of sensory approaches was **the increased sense of control** allowing participants to think more clearly and to regulate their emotions. By being in control of their environment people became more in control of themselves. There was a critical shift of control away from the external control of staff to internal control and independent self-regulation.

Staff noticed that as people became calmer in the room and more secure they tended to **open up and express their emotions more freely.** Some people disclosed histories of trauma for the first time. Access to the room provided an opportunity for **sharing deep emotions** but staff needed to be prepared to deal with these traumatic revelations.

While it did not work every time, **sensory approaches were widely valued as an addition to de-escalation strategies and a way to avoid medical or restrictive interventions**. Some service users were able to use the sensory room as a **preventative** measure before stressful procedures or events. According to the study these approaches validated existing **self-management strategies** and facilitated personal responsibility. For example, once the sensory strategies reduced the users' distress level sufficiently, they were **able to take advantage of cognitive based relaxation techniques, mindfulness and other self-soothing methods.** Participants reported that they used sensory strategies in combination with medication and that together it was enough to help them avoid seclusion. Service users also reported that strategies such as using the weighted blanket **kept them from resorting to self-harm** and helped them get through distress with fewer side effects.

One service user suggested having a poster at the nurses station or on the medication cabinet where the PRN's are kept saying, **"Have you tried the sensory room?"**

It was especially effective when **staff approached the sensory modulation process as one of active discovery and not just a tool for passive de-escalation**. Besides finding something that works – the most lasting benefit came when the user understood how and why it might work and how they might use it in the future.

Service users reported that the **skills they learned had carryover to the community** and that having alternatives helped avoid "popping a pill." They related how they **integrated sensory modulation strategies into their everyday lives**; for example using a stress ball and deep breathing. One person described making her own sensory room in a shed admitting that she only had one short admission since she had the room; she was able to use her makeshift sensory room as an alternative to drinking.

Staff described the various symptoms and situations in which clients benefitted from sensory strategies however they admitted there was **no clear patter as to which interventions would help with a particular set of symptoms**. This might be an area for further research but personal preferences very so widely a set solution for particular symptoms or clinical presentation may not be possible. It became obvious in the study that **users needed to choose equipment and strategies according to their own personal needs.**

Participants in the study related the positive impact it had on relationships with staff, developing trust and ability to feel supported. This sense of connection with staff was considered an important aspect in

the overall effectiveness of the sensory modulation approach. Collaboration was essential. Several users commented on the effectiveness of working with a staff member who was truly present. Having staff use the equipment alongside the service user was described as particularly effective, making it a shared experience.

While some staff had been skeptical initially they reported very few concerns about negative effects of sensory modulation itself. Service users who reported experiencing unpleasant or agitating sensations attributed it to the room or equipment not being set up according to their preferences. There were instances reported that sensory approaches drew attention to negative thinking or difficult life circumstances leading to distress and agitation. This brings attention to the importance of staff being

present and having an understanding of trauma histories and how to support people having these types of difficulties. **Despite these occasional negative experiences the overall view of staff and service users was that the benefits outweigh the risks**.

Insights on Implementation of Sensory Rooms and Sensory Approaches

Sensory Room

- A dedicated sensory room determined important.
- Provides a separate space away from distractions and stress of the ward.
- Users can control their environment.
- Provides an anchor for sensory modulation.
- Noise around room was seen as a barrier.
- Large enough to contain seating and storage for equipment – small enough to be cozy.
- Homey but not clinical.
- Uncluttered.
- Natural light.
- Colors, sounds and images from nature suggested.
- Culturally Inclusive. (considerations for Maori and Pacific Island people)

Sensory Equipment

- Massage chair often tried first – item most used for reducing stress – not everyone liked it (could be too intense – right setting was critical) Typically timer set for 15 min. of use.
- Thick blankets were put over massage chair for those thin and sensitive.
- Rocking chair calming for some.
- Some liked to be in beanbag chair with weighted blanket – gave sense of safety, being held and secure.
- Wrapping up in blankets gave sense of containment.
- Users calmed by stroking weighted animals (petting was rhythmic and grounding) – positive associations with pets at home.
- Stress balls and other items popular for distraction.

- Aromatherapy items not used as much in these reports. (May have been an under-utilized tool.)
- Strong sensory input felt to be stabilizing and grounding.
- Sensory preferences had to be considered – users needed to be in control.
- Music and recorded sounds helped some users, but not everyone – some took their own MP3 player in. It was helpful to have choices.
- Colored lights enjoyed by some, others disliked them. Staff suggested being careful – colored light contraindicated by some. One user specifically mentioned flashing lights agitated her.
- Service users suggested a wider range of options for sensory equipment would be helpful. Staff can enhance the grounding features of the massage chair or weighted blankets by drawing attention to the here and now and focusing on the physical sensations.

Resourcing and Maintenance of Sensory Room and Equipment

- A plan is needed for care and maintenance.
- A budget is needed for replacing missing or broken items and restocking usable items such as aromatherapy oils.
- A designated leader needs to be in charge of making sure the room and equipment are clean, re-stocked and ready for use.
- Hygiene was mentioned as a concern initially in setting up the room but it was never mentioned by staff or service users.
- There were washable covers on seating and weighted blankets and antibacterial wipes for tactile objects.

Orientation to Room

- Positive staff attitudes critical.
- The way staff supported the use of room and equipment clearly impacted outcomes.
- Staff were expected to orient all new users to the room and equipment. Users felt sometimes this process was hurried. Users benefitted from understanding how and why the equipment was used.
- Participants suggested orientation early in admit before being upset and needing to use the room.
- One site found a group orientation to sensory modulation helpful.

Identifying Sensory Preferences and Strategies

- Participants reported that support was needed in trialing equipment and determining preferences.
- Being asked about interests and positive associations was deemed helpful.
- Process of identifying preferences was largely trial and error.
- No assessment such as the Adult/Adolescent Profile had been used.
- Service users must always be provided with choices and control over the sensory activities.

- Systems for recording preferences varied in settings.
- Identification of effective strategies helped during admit for de-escalation and also post discharge.
- Findings indicated sensory triggers, preferences and strategies should be incorporated into recovery plans and advanced directives.

Pre-emptive and Timely Use

- It was deemed important to use sensory modulation as much for prevention of escalation as much as it was for de-escalation.
- Users reported sometimes they were at a point of being too distressed to use passive strategies and needed more active strategies such as walking around hospital courtyard.
- Interception by staff at the right time critical.
- Awareness of individual needs important.
- Some users described needing cues or support from staff to use the room when they did not realize they could benefit.
- Staff needs to recognize signs and triggers and prompt use of room as early as possible.
- Staff needed to be prepared to accompany user when needed and also to have enough time to intervene appropriately and not to rush. "Yeah, make sure you have enough time." P.38
- Having room is proper condition when needed important.

Safety

- Safety is a primary consideration for participants and staff.
- Staff training and competence in the use of sensory modalities is essential.
- There should be a process to always let someone know when you are using the room with a participant in case something happens.
- Staff needs to know the person they are bringing into the room and know their history, trauma history, symptoms, triggers, early warning signs, any history of aggression and sensory preferences. Strong clinical judgement must always be used in assessing the appropriateness of a client for use of the sensory room and their current level of agitation.
- Extra staff can be assigned to be outside the room if needed.
- Levels of agitation or anger might be too high to use the room safely – other options should be considered like vigorous walking outside in a courtyard. Tools could be offered in the ward or their bedroom, or in a more secure environment.
- Safety is a partnership where users must bring their own self-knowledge to safety planning as well as a respect for the clinical judgement of staff regarding their appropriateness for use of the sensory room or tools.
- Knowing service users histories and preferences was critical in a situation of distress.
- Staff and users should be a good match and have a relationship of comfort and trust. Gender should be considered as well as sensitivity to cultural issues.
- Too many items should not be introduced at once and can be overwhelming.

- In a state of escalated arousal input from internal senses (deep pressure and regular vestibular input) might be tolerated better than input from the external senses such as sight and sound.
- Staff needs to be trained and prepared to deal with deep emotions that might surface as well as revelations of trauma.

Organizational Considerations

Service Culture

- Practice of sensory modulation was influenced by broader systems and processes.
- There needs to be a culture shift. One of the barriers identified by participants was when things are done "in the way they have always been done."
- Culture shift included organizational wide training and leaders willing "to give a push" when needed.
- Staff needs training on sensory modulation approaches and regular updates and they need to be familiar with the sensory room and equipment.
- There must be investment from management.
- Using sensory modulation as an embedded routine practice requires the investment of adequate time and resources at an organizational level.
- Funding will be needed for the development and ongoing management, care and restocking of the sensory room and equipment.
- There must be an organizational commitment to minimize seclusion and restraint.
- Sensory approaches need to be built into the development of wards and practices. It does not need to be limited to having a sensory room for de-escalation. It is about coping and wellbeing and facilitating self-awareness and self-management strategies.
- The "Releasing Time to Care" project in England has shown that improved ward processes and environments can increase safety and efficiency and allow nurses and therapists to have more time with service users(Robert et al 2011)

Service Policies and Procedures

- In order to create a shift in staff culture and routine practice service policies are needed to outline the purpose and to guide implementation of sensory modulation approaches.
- Staff and service users expressed concern about the potential for restrictive or prescriptive policies.
- Policies requiring room bookings and documentations requirements were seen as barriers – eventually there was a shift to more informality and no forms to fill out.
- Some saw the requirement of having staff present to be a barrier due to limited staff time and times when users preferred to have their own space. On the other hand having one to one time with staff was reported by some to be one of the most beneficial outcomes of the sensory room.
- Service users in sites where time in the sensory room was restricted to daytime hours as restrictive and a negative impact on usefulness.

- Sensory modulation approach should not be limited to sensory room but integrated into ward routine practice.

Staff knowledge and confidence

- A lack of staff knowledge and confidence in the use of sensory modulation practices was seen as a barrier and contributed to decrease effectiveness, impaired therapeutic relationships and even safety.
- Staff suggestions included a pre-determined organizational training standard such as a one or two day training, ongoing workshops, regular supervision and especially more education on matching sensory activities to arousal levels and sensory preferences.
- Training in sensory modulation could also be integrated into restraint and trauma training.
- Most staff who attended a comprehensive workshop reported feeling increased competence and confidence in the use of sensory modulation principles and modalities.
- Staff development required strong leadership; those with a particular interest in sensory modulation could be given additional training such as "train the trainer" workshops.
- Staff should have an opportunity to trial sensory modulation screening tools and equipment on themselves.
- Participants suggested expanding training opportunities to community staff and outpatient departments.

Staff availability

- Both staff and service users felt that staff availability or lack of it was the biggest barrier to the success of sensory modulation approaches.
- Timely response of staff and 1:1 time with staff was considered part of the sensory modulation process.
- At times nursing staff found it difficult to take time off the floor to support service users in the sensory room, despite the potential for avoiding crisis.
- Lack of time on the part of staff caused delays in the use of the sensory room or sporadic use.
- Suggestions for dealing with staff availability included: building in more time for staff to take 1:1 time with clients, having a roster system of people available on a certain day, have a dedicated sensory modulation specialist, training care assistants and peer workers to facilitate use of the sensory room, especially having staff available on evening shifts and weekends – some of the most difficult times for some service users.
- In sites where staff was not required in the sensory room there were problems with broken or missing equipment.

Access to Room and Equipment

- Access in these facilities was difficult for the ICU patients who in some ways needed it the most and who were most often the ones restrained or secluded. Patients would need to be escorted

from the ICU to the sensory room and this was problematic due to the acuity. Staff felt uncomfortable taking high needs people into the open area.

- Some staff members took sensory items to the ICU but not often. Users felt it was not unreasonable to have a rocking chair and weighted blanket and soothing items available on the ICU. They suggested the possibility of mobile sensory carts.
- Access to Sensory Modulation at night was mentioned as another problem. Many staff presumed it could not be used at night. A policy around this was clearly needed.
- Study participants felt sensory modulation options should be available 24 hours a day.
- Study participants suggested expanding the use across different mental health services including respite and residential services and even to home and the community.
- Participants felt that the initial outlay and financial investment was reasonable for the benefit gained by a good proportion of service users.

Study Outcomes

Note: there was a possible positive bias because study participants volunteered to be a part of the study.

- Overall, the study indicates a very positive response to sensory modulation from both staff and service users.
- "The experience of both staff and service users provided practice-based evidence for the efficacy and acceptability of sensory modulation." P. 50
- Findings suggest that sensory modulation approaches impact physiological arousal as well as associated emotion and behavior.
- Service users described feeling better supported and cared for.
- The use of sensory modulation practices improved the mental health service experience.
- Strong consensus sensory modulation provided a useful tool for calming.
- The sensory modulation approach effectiveness included more 1:1 time with staff, a space for sanctuary and escape, increased personal control and self-soothing and a meaningful distraction from boredom.
- The approach provided a potential alternative to PRN medication through its calming influence.
- The approach was determined useful for calming people experiencing lower levels of agitation and distress.
- Due to the difficulty in access of the ICU clients and safety issues there was not enough evidence to attest to its usefulness for highly agitated and aggressive service users, however enough accounts were provided to indicate this approach is relevant to highly aroused people if risk management principles are followed. The focus should be on distraction, self-containment and grounding.
- The approach is helpful for people with anxiety and mood disorders but particularly helpful for people with trauma histories, PTSD and self-harming behaviors.
- Findings suggest influences on individual efficacy of sensory modulation approaches include coping style, sensory preferences, self-awareness and self-regulation skills.

- Sensory preferences need to be identified early and a wide range of tools and strategies are needed to meet individual needs.
- Practice needs to be informed by understanding individual risk factors, triggers, sensory sensitivities, warning signs and sensory preferences.
- Sensory modulation was found to facilitate interpersonal connection and trust. Service users reported that having support and someone to talk with is a top priority in times of distress.
- "Human body language, touch and tone of voice are sensory experiences which people are particularly sensitive to when highly agitated. Staff being present to the service users' experience and available to assist and listen can amplify the sense of safety, soothing, stability and control." P.51 Note: this supports Porges' approach.
- The relational aspect of sensory modulation approach should be emphasized. "The safe space that develops through the sensory experience, also allows the verbal expression and exploration of underlying thoughts and emotions. " p. 51
- A major outcome was the development of self-awareness and self-management skills. Users reported being able to apply strategies both within and without the ward environment.
- Sensory modulation was not always effective in reducing arousal. Identifying risks and contraindications is essential. Negative reactions were most often caused when the room or equipment were not applied according to the users sensory, emotional and physical needs.

Recommendations

- Place equal emphasis on all three outcomes: 1.) inducing a calm state; 2) increasing interpersonal connection; and 3) facilitating service user self-management
- Provide a thorough orientation on sensory tools to service users and support them through modeling and guidance.
- Individualize tools and strategies to meet unique sensory, cultural, gender, and safety needs.
- Integrate sensory modulation with comprehensive risk assessment, trauma informed care and collaborative recovery and safety planning practices.
- Staff needs adequate training to understand mechanisms for calming and to collaborate and support service users to find what works best in a variety of circumstances.
- Sensory modulation should be used pre-emptively with an early recognition of warning signs and triggers.
- Use and outcomes should be routinely documented. Description of sensory sensitivities, triggers, warning signs and preferred sensory coping strategies should be in each service users file and if possible in a locked cabinet in the sensory room.