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CARE TEAM EDUCATION ON THE USE OF SENSORY RESOURCES
IN INPATIENT PSYCHIATRY

A Project Presented

by

Salsabil Hoque

to

The Faculty of the Graduate College

Of

The University of Vermont

In Partial Fulfillment of the Requirements
for the Degree of Master of Science
Specializing in Nursing

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This project for the Master's of Science degree by

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Abstract

Sensory processing is the way the nervous system receives, organizes, and understands sensory information gained through our body's senses and physical environment. The deprivation of sensory processing, or the inability of one's nervous system to use meaningful sensations, can lead to negative outcomes such as anxiety, stress, depression, withdrawal and reduced motivation, or agitation and disturbed behavior. Dr. Ayres' Sensory Integration Theory was used as the guiding framework for this project. Research literature indicates that sensory modulated approaches are an effective treatment approach for patients who are distressed, anxious, agitated, or potentially aggressive, and can be used as an alternative to more coercive actions such as seclusion and restraint. It has also demonstrated that sensory modulated approaches can be helpful for people with various psychiatric diagnoses such as anxiety, depression, mania, psychosis, and posttraumatic stress disorders.

The aim of this project was to provide an educational in-service to psychiatric inpatient staff members about the use of sensory modulated approaches as an additional preventive tool for mental health patients. A post evaluation was provided to identify the effectiveness of the educational in-service. Participants of the in-service included sixteen (16) staff members and ten (10) undergraduate nursing students. All participants who completed the post evaluation reported the rating of helpfulness of sensory integration approaches to their current practice. All staff members reported it as very helpful, while eighty-six percent (86%) of students thought it was very helpful to their current practice. Sixty-nine percent (69%) of the staff reported the in-service as very helpful for increasing their knowledge of sensory resources, and eighty-six percent (86%) of the students reported it as very helpful. The favorable outcomes demonstrate success in providing staff education. Increased knowledge and understanding allow staff members to adopt the sensory modulated approach to further help reduce behavioral disturbances, empower staff and patients to build positive relationships, and provide alternative strategies to more coercive practices such as seclusion or restraints. Further research on the effect of this educational in-service on the actual implementation of sensory modulated approach is needed to support the true effectiveness of this project. Future implications for advanced nursing practice, education, research, and health policy are to promote and implement this alternative approach, provide evidence based data to improve the quality of clinical practice, and analyze the data collected to improve future practices and overall patient outcomes.

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Chapter I- Introduction

Sensory integrated therapy has been used by occupational therapy for more than 56 years to help develop motor skills, creativity, social skills, and other valuable components needed for growth and development (Ayres, 1972). From the moment an individual is able to see, hear, feel, move, and taste, he or she is ready for sensory stimulation. Sensory processing and integration is a normal, neurological, developmental process which begins in the womb and continues throughout one's life. A sensory room is a therapeutic space, with specific equipment and activities, designed to promote sensory processing, self-organization and positive change. Such a room, also known as a comfort room, can provide sensory stimulus with the use of lights, sounds, textures, and other sensory approaches to aid a patient during de-escalation, self-regulation and calming processes (Cummings et al., 2010). The objects within the room are referred to as sensory items or resources. The phrases sensory integration, sensory modulated, and sensory based practices/approaches are used interchangeably to support the related terminology used in various literatures.

The intent of utilizing such rooms is to “help create a safe space, facilitate the therapeutic alliance, provide opportunities for engagement in prevention and crisis de-escalation strategies, as well as a host of other therapeutic exchanges, and promote self-care/self-nurturance, resilience and recovery” (OT-Innovations, 2015, para. 1). A national patient safety focus in all psychiatric settings is decreasing events of seclusion and restraint. The National Association of State Mental Health Program Directors' goal is to prevent, reduce, and ultimately eliminate the use of seclusion and restraint (NASMHPD, 1999). Practice guidelines mandate that seclusion and restraint only be used as last resort measures when a patient's level of agitation precipitates in an immediate threat of harm to him/herself or others and when other strategies have failed (Boote,

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Telford, & Cooper, 2002). These emergency procedures can lead to death and physical and psychological injury for the patient (SAMHSA Seclusion and Restraint- “Statement of the Problem and SAMHSA’s Response,” n.d.). A review by Mohr et al. (2003), concluded that the use of restraints puts patients at risk for psychological injury and death and can be traumatic even without physical injury.

The Centers for Medicare and Medicaid Services (CMS) identifies two forms of restraints: physical restraints and chemical restraints (CMS- Glossary, n.d.). Past research has repeatedly demonstrated that restraints don't protect patients from falling, wandering, or removing tubes and other devices. In fact, they can enhance many problems, consequently leading to serious physical, emotional, and psychological problems (Agens, 2010). Agens (2010) reports the prevalence of physical restraint fluctuates from 7.4% to 17% in acute care hospitals, and up to 37% in long-term care facilities, and the prevalence of chemical restraints as high as 34% in long-term facilities in the United States. It is hoped that educating patients, families, and the healthcare team, can increase the use of less restrictive alternatives, and enhance patient safety while protecting their rights and dignity. This is also in line with the American Psychiatric Nurses Association’s (APNA) Position Statement on the Use of Seclusion and Restraint (2014), where they articulate their support and commitment to the reduction and ultimate elimination of seclusion and restraint. Furthermore, they advocate for continued research to support evidence-based practices for the prevention and management of behavioral emergencies.

Substance Abuse and Mental Health Services Administration (SAMHSA), Trauma and Justice Strategic Initiative (2012), identifies trauma as a result of “an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual’s functioning and physical,

social, emotional, or spiritual well-being” (Trauma section, para. 2). In addition, these traumatic experiences that result in physical injury can affect quality of life, health, and functioning (Polinder et al., 2012). Sensory modulated approach, as a potential alternative to more coercive practice, supports patients having an opportunity to self-regulate when they’re distressed or agitated. Therefore, offering compassionate, humane, and self-nurturing choices through the use of sensory modulated approaches for prevention and crisis de-escalation is essential in providing therapeutic care in an organized and safe manner.

Sensory modulation practices are also said to support recovery oriented practice, as well as trauma-informed care (Scanlan & Novak, 2015). The sensory modulated approaches are based on non-invasive, self-directing and empowering interventions that may provide support for trauma-informed care. These approaches can be used for more than just a space for relaxation. With effective use of these approaches, staff members may offer alternative treatment opportunities, which both complement and reinforce a holistic approach to treat various psychiatric diagnoses. LeBel and Champagne (2010), particularly report that their study of sensory integrated approaches has helped patients with trauma histories, posttraumatic stress disorder (PTSD) and self-harming behaviors.

Tina Champagne, an Occupational Therapist from Western Massachusetts, was the first to expand the idea of using sensory rooms in mental health environments in 2003 (Champagne & Sayer, 2003). Her expansive experience with sensory rooms and sensory integrated treatment has led her to emphasize the importance of utilizing sensory rooms and items as a part of a patient’s therapeutic mental health treatment plans. Champagne investigated the efficacy of sensory rooms, which demonstrated positive responses from patients and also showed a significant decrease in their perceived levels of stress. The patients also developed coping strategies, which

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helped regulate their emotions, resulting in a decrease in the need for physical restraints (Champagne & Stromberg, 2004).

Although founded in occupational therapy settings, many psychiatric/mental health units throughout the country are now implementing the use of sensory resources, as these therapeutic sensory resources are designed to promote sensory modulation and facilitate the learning and practice of stress management skills (Childs, 2004). Sensory modulated approach has offered opportunities for self-discovery and meaningful therapeutic activity as a means for crisis de-escalation and crisis prevention, as patients learn safer and healthier ways to regain self-control. The sensory room represent a quiet, safe, and respectful place of retreat that is much more supportive than rooms for seclusion, which deprive the senses and invite disorientation (Childs, 2004). Effective utilization of sensory resources can provide a bridge between skills learned in the hospital setting, and those used in the discharge environment.

Many patients with mental illness struggle with developing problem-solving skills. By allowing mental health patients to relieve their own acute crisis or distress they regain a sense of control over their environment. For patient with mental illness, what may look like simple play with sensory items may actually be the process of self-education and relaxation in action.

Therefore, providing the proper sensory resource(s) for an individual's need is crucial.

Understanding the root causes of behavior problems in individual patients is critical to ensuring proper treatment. What could be demonstrated as an effective therapeutic stimulation for one, may not be replicated as effective in another patient; each patient is unique and must be treated as such. Sensory resources must be tailored to the patient's diagnosis, disease process and needs.

Sensory modulated approach has a strong influence on the nervous system and must be carefully utilized. Providing basic training is essential in order to develop an appreciation of how

and why sensory modulated practices work (OT-Innovations, 2015). For example, once the staff member has identified a particular patient is over-stimulated and unable to calm themselves, he/she can introduce effective sensory modulated approaches, such as the use of a rocking chair or weighted blankets, which may help the patient calm down and regain self-control. Therefore, sensory modulated practices entail supervision by knowledgeable, trained staff.

As this project is based on professional judgement, clinical experience, and recent evidenced based research, educating the inpatient psychiatry staff regarding the safe and effective use of sensory resources, activities and environmental interventions is vital. This strategy relies heavily on environmental changes to include comfort and sensory stimulation and other meaningful treatment activities designed to teach people emotional self-management skills. Furthermore, adherence to safety precautions and being mindful of an individual's sensory preferences are essential. Successful outcomes and patient value of the sensory room relies on staff competence and the quality of the therapeutic relationships developed there.

Conceptual Framework

Dr. A. Jean Ayres' Sensory Integration Theory was used as the guiding framework for this project. Dr. Ayres defined the impact of sensory processing on learning, emotions, and behavior. She created a set of intervention principles to address sensory integration deficits for improved function and participation, then designed and implemented a research program to study and refine knowledge about sensory integration function and dysfunction. This led to the development of a theoretical framework that incorporated these concepts, principles and techniques (Ayres, 1972). "Sensory integration theory proposes that sensory integration is a neurobiological process that organizes sensation from one's own body and from the environment and makes it possible to use the body effectively within the environment" (Ayres, 1972, p. 11).

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The nervous system has a specific sensory system dedicated to each sense and humans have a multitude of senses. Sensory integration is the neurological process that organizes sensory input from one’s own body and the environment, and makes it possible to use the body effectively within the environment. Ayres (1989) states the “brain must register, select, interpret, compare, and associate sensory information in a flexible, constantly changing pattern” (p. 11). Sensory processing is the brain receiving, interpreting, and organizing input from all the active senses at any given moment (7senses, 2013). All individuals learn about the world through their senses and use sensory processing to transform sensory information into meaningful messages. The two images below provide a visual description of sensory processing.

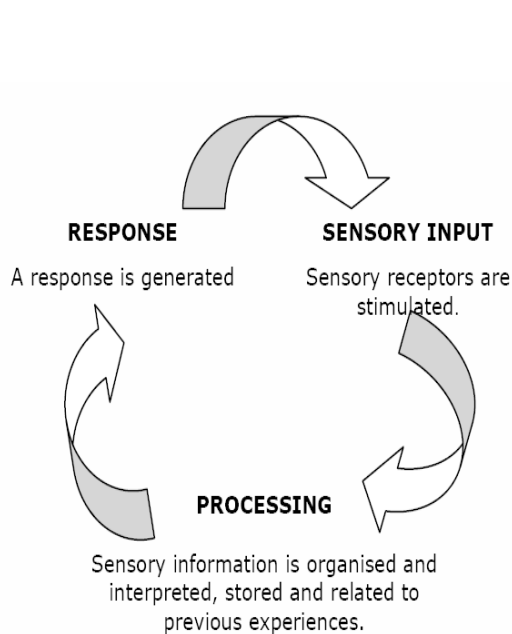


Image 1.

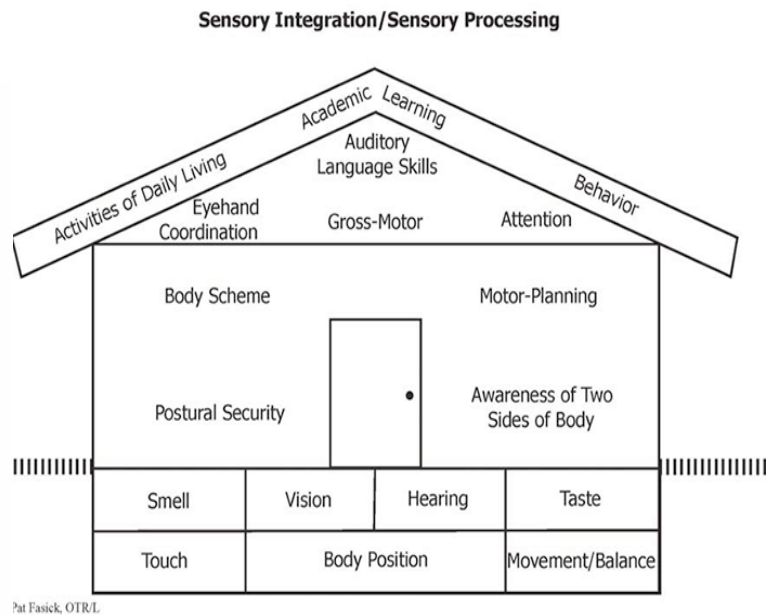


Image 2.

Definitions by the 7 Senses Foundation (2013):

1. Sight or Vision: input relating to sight; one's ability to correctly perceive, discriminate, process, and respond to what one sees.
2. Smell or Olfaction: input relating to smell; one's ability to correctly perceive, discriminate, process, and respond to different odors.
3. Taste or gustation: capability to detect the taste of substances such as food, certain minerals, poisons, etc.
4. Hearing or Audition: input relating to sounds; one's ability to correctly perceive, discriminate, process, and respond to sounds.
5. Tactile or somatosensory: the sense of touch; input from the skin receptors about touch, pressure, temperature, pain, and movement of the hairs on the skin.
6. Vestibular: the sense of movement; input from the inner ear about equilibrium, gravitational changes, movement experiences, and position in space.
7. Proprioception: the sense of position; input from the muscles and joints about body position, weight, pressure, stretch, movement, and changes in position.

The use of the multi-sensory resources and sensory modulated approaches clearly demonstrate benefit to patients in reducing self-reported levels of distress (Champagne & Sayer, 2013). Therefore, it is imperative for all mental health staff to understand the fundamentals. The current application of sensory modulated approaches is based on evidence from carefully designed studies. However, further research is needed. This project will aid in the creation of a sensory room in the inpatient psychiatric unit at UVMMC, in which staff members can implement sensory resources, an alternative to seclusion and restraints, in response to patient

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distress. Most importantly, this project will empower the mental health staff to create a restraint-free culture of safety.

The core competencies of advanced practice registered nurses (APRNs) were used to guide this project. The National Organization of Nurse Practitioner Faculties (NONPF) identifies core competencies that include scientific foundation, leadership, practice inquiry, quality, and ethics (NONPF, 2013). An important standard of an APRN is to develop new practice approaches based on the integration of research, theory, and practice knowledge (NONPF, 2013). These practice approaches are congruent with patient centered care, anticipating variations in practice, and are proactive in implementing interventions to ensure quality and better patient outcome. APRNs are expected to be leaders in their field, to promote a health care culture that integrates evidence-based practice, and to mentor fellow registered nurses and an interprofessional team. This project is based on scientific foundation and involves an APRN providing an in-service, which focuses on implementing sensory resources as a safe and effective coping tool for psychiatric patients on two inpatient psychiatric units. This project also integrated ethics by providing care based on patient autonomy and beneficence. Communication of this research during the authentic engagement in-service will aid to advance the psychiatric nursing profession.

Chapter II- Review of Literature

Purpose of Literature Review

The introduction of sensory rooms and other sensory modulated approaches are covered in this literature review, focusing on the impact on seclusion rates, patient's de-escalation, and the overall staff- patient experiences with the implementation of sensory modulated approaches. Although the sensory modulated approach was initially founded by Occupational Therapists, the addition of this approach in psychiatric settings has demonstrated a reduction in seclusion and restraint rates. This method of sensory approach has been utilized as non-invasive, self-directed, and empowering interventions that support patients to de-escalate within an appropriate environment that engages the patient's senses to reduce aggressive behavior and prevent further escalation.

Outcomes of Patient Distress

Champagne & Stromberg (2003), conducted a quality improvement study on the use of a sensory room that demonstrated a positive effect on the majority of those who participated. This study was conducted in a 24-bed, locked unit, in a 125-bed community hospital in Massachusetts. Patients rated their perceived levels of distress before and after each session using a qualitative questionnaire and a 10-point ordinal rating scale that represented a description of one's emotional state. The study included 47 patients with varied diagnoses and 96 sensory room sessions. It was reported that 89% of the sensory room sessions had a positive effect of perceived level of distress, 10% had no effect, and 1% had a negative effect. It was concluded that the use of the multi-sensory room and sensory modulated approach demonstrated clear benefit to the majority of patients in reducing self-reported levels of distress. Therefore, results suggest the relevance of a sensory room in psychiatric settings.

Cummings, Grandfield & Goldwell (2010) conducted a pilot project of a sensory room introduction on an admission 238-bed acute psychiatric unit in Concord, New Hampshire. A quasi-experimental research study analyzed the effects of an experimental unit (one with a new sensory room) and a control unit (one without the sensory room) during a nine-month period. A total of 105 patients participated in the evaluation process and 89% reported a decrease in distress after using the sensory room.

Sutton & Nicholson (2011) conducted a qualitative study, in four psychiatric units in New Zealand, that explored the use of a dedicated sensory rooms and the experiences reported by patients and staff. Of note, these researchers found that the use of use of sensory modulated approaches helped improve the therapeutic relationships and trust between patients and staff. The staff members who actively participated in the process of patient relaxation, with the addition of sensory input and used the opportunities to teach self-coping techniques, perceived to have built a more therapeutic relationship than those staff members who may have mostly referred patients to the sensory room when they appeared aroused or distressed. The perceived experiences reported by staff were that patients gained internal control and independent self-regulation. The researchers also found that utilizing sensory resources were particularly helpful for patients with trauma histories, PTSD, and self harming behaviors. They determined that the use of the room was most effective when used for active discovery and not just passive de-escalation (Sutton and Nicholson, 2011).

Another study conducted by Chalmers et al. (2012), in Australia, explored the effectiveness of sensory rooms on two psychiatric units. Individualized safety plans were used to identify past experiences and possible triggering factors to avoid further trauma if patient was secluded in prior admissions. On one unit, a total of 109 patients rated their distress levels before

and after using the sensory room. On the second unit, a total of 117 patients used the sensory room, and 114, (97%) reported a decrease in their distress level after the utilizing the items in the sensory room.

Changes in seclusion and restraint rates

Champagne and Sayer (2003) reported the effects of seclusion and restraint rates after successfully implementing a sensory room previously by Champagne and Stromberg (2003). Champagne and Sayer (2003) found a 54% reduction in seclusion and restraint rates after one year of a sensory room implementation. The findings of this study report an overall positive impact, and in congruent with the national safety focus of reducing seclusion and restraint rates. LeBel and Champagne (2010) conducted a survey, in Massachusetts, that included 39 inpatient psychiatric units that had the facilities for sensory modulated approaches. Of these 39 programs, 69% indicated that they were using sensory approaches, 21% were not, and 10% were developing sensory approaches. Of those using sensory modulated approaches, a 36% reduction of restraint and seclusion rates was reported.

A psychiatric inpatient unit in Australia that incorporated a psychiatric ICU, conducted a qualitative research study of the efficacy of only sensory resources, as an alternative to a dedicated sensory room, and an implementation of a brief sensory and risk assessment tool (Safety Tool). This six-month pilot study by Lee et al. (2010), found that 43 patients in a 30-bed acute psychiatric unit who utilized the sensory resources and completed a Safety Tool, had a 39% decrease in seclusion events compared to their previous admissions or current admissions, prior to accessing the sensory resources. The sensory resources also displayed positive staff management of potentially aggressive situations and further improved staff- patient

communication. This study showed the efficacy of sensory resources to decrease seclusion events, even though a dedicated sensory room was not utilized.

Cummings, Grandfield & Goldwell (2010) found no change or decrease in seclusion rates following a pilot study of a sensory room introduction on an admission unit. This quasi-experimental research study analyzed the frequency and duration of two inpatient psychiatric units' seclusion and restraint rates between an experimental unit and a control unit during a nine-month period. Using quality improvement data, the authors analyzed the data using one-way analysis of variance (ANOVA), which did not show a statistically significant difference in the rate of seclusion events with the addition of a sensory room. Despite the lack of demonstrated efficacy, the authors note that of the 105 patients, 11 'high-utilizers' accounted for 56% of all restraint hours, 15% of all seclusion and restraint episodes, and 14% of all seclusion hours. Although the sensory room was effective for a majority of patients in providing tools to successfully manage distress, the authors speculated that patients in acute crisis may not view a sensory modulation approach as an effective intervention. Similarly, Chalmers et al. (2012), explored the effectiveness of sensory rooms on seclusion and restraint use. Despite the reports of a decrease in patient's distress level after the utilizing sensory resources, there was no change in the unit's seclusion and restraint rates.

A pilot study performed in Australia, by Novak et al. (2012), also reported result findings of no change in seclusion and restraint rates. This study investigated patients in a 40-bed acute inpatient psychiatric unit, and the outcomes associated with the introduction of a sensory room in such a unit. Monthly seclusion and aggression statistics were collated for the 12 months prior to and following implementation. During this period, the sensory room was utilized on 75 times. Much of consumers, 55 patients, who used the room reported a 78.6% decrease in distress.

Seclusion was required after use of the room on four occasions, as these patients were unable to effectively self-contain their behavioral disturbances even with use of the sensory room.

Although the findings showed no changes in seclusion rates on the unit, the implementation of a sensory room demonstrated to be an effective intervention to decrease patient distress. Patients rated their perceived distress level and the staff rated a variety of disturbed behaviors before and after each use of the sensory room. The patients who utilized the sensory room reported a notable decrease in their distress and the staff reported an improvement in behavior.

Smith & Jones, (2014) conducted a small-scale, explanatory, sequential mixed method research design, at a men-only, 15-bed psychiatric intensive care unit in the U.K., exploring the impact on seclusion rates and experiences of staff and patients of using the sensory room. Ten staff members and seven patients participated in the study. An accumulation of data was collected between September 2010 and December 2012. Seclusion rates were gathered three months prior to the introduction of the sensory room, and three months after the introduction of a sensory room. 13 months following the introduction of the sensory room, qualitative interviews were conducted with staff and patients. The results showed that staff and patients viewed the sensory room as a positive therapeutic intervention, and that using the sensory room had improved staff-patient communication, as well as the overall experience of patients in the ICU. However, results showed 27 incidents of seclusion in the three months prior to the sensory room introduction compared to 37 incidents in the following three months, a 37% increase, even though the staff perceived a decrease in seclusion since the availability of the sensory room. Of the 27 incidents in the pre-introduction time, 12 (44.4%) were repeat seclusions by four different patients. In the post-introduction period, 25 of the 37 (67.5%) seclusions were repeat incidents of seclusion by six patients. Furthermore, one patient was secluded 12 times in the post-

introduction period, accounting for 32.4 % of the total seclusion events which may have skewed the overall results. The authors discussed that looking at seclusion rates exclusively may not have been the most effective way of evaluating the true effect of using of the sensory room, as well as other limitations that may have contributed to their findings, such as the differences between groups, and the small sample size in the study. However, the authors still recommend other ICUs and inpatient psychiatric settings to implement and utilize sensory rooms and other sensory modulated approaches, as it enriches the communication between staff and patients.

In conclusion, there were several recommendations for practice that can be deduced from this review of literature. The use of sensory rooms in psychiatric settings is becoming more widespread, has shown positive overall results in decreasing patient distress and de-escalation, and further support efforts to reduce the rates of seclusion and restraints. The overall consensus of sensory modulated approach has been identified as an effective treatment approach for patients who are distressed, anxious, agitated, or potentially aggressive, and serves as an alternative to more coercive actions. Some of the more popular activities or items identified in the rooms include massage chairs, weighted blankets, soft blankets, aromatherapy items, music, stress balls and fidget tools, oral motor items, weighted lap pads, and weighted animals (Champagne, 2006; Cummings, et al 2010; Sutton & Nicholson, 2011).

From the above studies, all the studies reported a decrease in distress level, three reported a decrease in seclusion and restraint rates, three reported no changes in seclusion, and one study reported an increase in seclusion rates. However, all the studies concluded that a sensory room provides an important opportunity for inpatient psychiatric units to consider as a means of reducing seclusion and restraint use in patients. The creation of a safe environment to learn how

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to use a 'time out' to reduce aggression or anger, receive crisis intervention and learn stress management techniques can be a positive approach to decreasing more invasive methods.

Chapter III- Methods

The University of Vermont Medical Center (UVM) inpatient psychiatry unit provides adult psychiatric care to patients admitted both voluntarily and involuntarily. The patient population consists of, but is not limited to, individuals diagnosed with conditions such as: anxiety disorders, depression, schizophrenia, bipolar disorder, substance abuse, and personality disorders. The clinical team includes approximately four psychiatrists, three resident physicians, 30 nurses, three social workers, three activity therapists, and 25 mental health technicians. The interprofessional staff maintain a strong dedication to consistently providing patients with the highest quality and least invasive care possible. This mental health care team takes a “comprehensive, multidisciplinary approach, working with [patients] to develop a personalized treatment plan tailored to [their] specific needs” (UVM Mental health website, n.d).

Mental health workers are responsible for providing support and services to individuals and families experiencing mental health issues. As inpatient mental health staff, it is vital to possess skills such as a caring and supportive attitude, good communication skills, patience, mediation and negotiation skills, and most importantly— emergency response skills. The staff is constantly evaluating for any safety hazards that may pose risks to themselves, other staff, or their patients. Whether caring for those with in acute crisis illnesses such as depression or phobias, or more persistent long-term illnesses, such as schizophrenia or post-traumatic disorders, mental health staff ensure that patients are able to heal in a safe and supportive environment.

Mental health staff work closely with people who are suffering from emotionally debilitating conditions, who may present with unpredictable behavior and aggression. Due to the intense vulnerability in our patients, staff may experience some stress due to interacting with

these patients in crisis. Therefore, it is imperative to learn about different ways we can assist our patients to de-escalate, further improving the patient's road to stabilization. It is the duty of mental health staff to provide skills and support for patients to cope with their crises. Sensory resources can serve as an adjunct treatment tool to the traditional pharmacotherapy regimen in a patient's treatment plan for patients to use in crisis. Sensory stimulation has the potential to help patients in ways that talk therapy and medication may not; using sensory modulated approaches can serve patients to increase body awareness and ability to regulate their own emotional levels to self-soothe in times of distress.

This project is aimed to increase the knowledge of the mental health staff, in hopes of providing a safer and more effective way for patients to reduce their level of distress. Based on the specific properties of our sensory systems and current literature, a development of ideal sensory resources can be suggested for patients in inpatient psychiatric unit at UVMMC. The use of sensory resources can expand the range of therapeutic interventions available, and avoid or resolve crisis situations that could lead to seclusion and restraint (Champagne & Stromberg, 2004).

All inpatient psychiatry staff at UVMMC were invited to attend an educational in-service that discusses the best use of sensory modulated approaches with the utilization of specific sensory resources. The educational in-service presentation was offered at least 4 different times throughout the day to accommodate staff's various schedules. The nursing manager and nurse educator expressed their desire, were supportive, and in favor of this educational in-service program being presented to the staff. This in-service material included an educational PowerPoint with audio and video enhancements, presented case-based scenarios with common diagnoses and suggested sensory resources, and included a brief handout that highlighted main

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points of sensory resources. Staff members had time to explore various sensory resources, such as fidget manipulatives, stress balls, aroma therapy, weighted blanket, safety vests, etc. There was also an opportunity to discuss common presenting behaviors and how to provide appropriate sensory modulated approaches to such patients. All the information was also made available online for staff members who could not attend the educational in-service. The goals and objectives for the staff members and other participants were to be receptive of the educational training and gain new tools and strategies to work with unstable patients and crisis situations.

After completion of this inservice, the learner will be able to:

1. Describe sensory modulated approaches.
2. Identify sensory practices and potential sensory problems related to specific psychiatric diagnoses.
3. Identify strategies for maintaining patient and caregiver safety during treatment of an agitated patient.
4. Use specific sensory resources appropriate for clinical examples of crisis situations.

The above objectives were measured by a post in-service evaluation form. This evaluation form included a Likert-rating scale. Adequate time was offered for the completion of the evaluation form, both during and at the end of the in-service. The forms then collected at the conclusion of the educational in-service.

Evaluation form questions included:

1. How helpful do you think the sensory modulated approach is to your current practice?
2. How helpful was the teaching of sensory recourses to better understand how to approach a patient in distress?
3. How helpful was this training in guiding you to select the best sensory time for a patient?

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4. How helpful was this in-service for increasing your knowledge of sensory resources?
5. How well did you understand sensory resources prior to this presentation?
6. How helpful was the “common presentations” activity to your understanding of this in-service?
7. How helpful would you rate the quality of this presentation overall?

Chapter IV- Evaluation and Discussion

The theory of sensory integration, as identified by Dr. Ayres (1972), was an influential framework that afforded the inpatient psychiatric staff with a more integrated understanding of the impact that sensory processing has on our learning, emotions, and behavior, and to use that knowledge in the management of agitated behavior among psychiatric patients. The educational in-service presentation precipitated a more active and dynamic involvement from all participants. The PowerPoint presentation was also made available for viewing by staff members who were unable to attend the in-service through the online portal, SharePoint.

This project was designed to provide inpatient psychiatric staff with a basic understanding of the use of sensory approaches, to help psychiatric patients become more aware of their individual sensory preferences, sensitivities, and encouraging positive actions for those with sensory impairment, to promote rest and relaxation when feeling agitated or stressed. Sensory modulated practices require basic knowledge of identifying sensory modulated, therapeutic tools for patients who may exhibit agitated, aggressive, or challenging behaviors. Knowledge of sensory resources and basic understanding of such therapeutic tools has the potential to enable staff members to more effectively de-escalate agitated or challenging patients without the use of restraint.

The educational in-service was provided in four sessions, at various times, to offer multiple opportunities for staff participation. Inpatient psychiatry staff were provided the educational in-service on October 27, 2016 at 1400 and 1530, October 28, 2016 at 1600, and October 31, 2016 at 0730. Undergraduate nursing students also attended the presentation on October 27, 2016 at 1530 and October 28, 2016 at 1600. Time was provided at the end of each in-service for participants to complete the short evaluation form.

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Evaluation Results

Table 1 provides a general overview of the results from the evaluation forms. Furthermore, the detailed summary of results are reported separately for the UVMHC inpatient psychiatry staff and for the undergraduate nursing students. The reason for separating the results is due to the difference between the groups. The most distinguishable difference is between participants who have already chosen psychiatric nursing as a career path and students who have not yet selected a nursing specialty. The UVMHC inpatient psychiatry staff voluntarily attended the educational in-service, and the undergraduate nursing students were provided the educational in-service as part of their psychiatric clinical experience. Subsequently, the major significance of providing the interactive educational in-service presentation was somewhat variable for each group.

Table 1.

Evaluation Question	Rating	FAHC Staff (N=16)	UVM Student Nurses (N = 7)	Total (N=23)
How helpful do you think the sensory modulated approach is to your current practice?	Not at all helpful			0
	Somewhat helpful			0
	Neutral			0
	Helpful		1	1
	Very helpful	16	6	22
How helpful was the teaching of sensory resources to your understanding on how	Not at all helpful			0
	Somewhat helpful			0

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to approach a patient in distress?	Neutral			0
	Helpful	4	2	6
	Very helpful	12	5	17
How helpful was this training in guiding you to select the best sensory resource for a patient?	Not at all helpful			0
	Somewhat helpful			0
	Neutral	1		1
	Helpful	3	2	5
	Very helpful	12	5	17
How helpful was this in-service for increasing your knowledge of sensory modulated approach?	Not at all helpful			0
	Somewhat helpful			0
	Neutral			0
	Helpful	5	1	6
	Very helpful	11	6	17
How well did you understand the use of sensory modulated approach prior to this presentation?	Not at all helpful	1		1
	Somewhat	3	1	4
	Neutral	1	2	3
	Well	3	1	4
	Very well	8	3	11
How helpful was the	Not at all helpful			0

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“common presentations” activity to your understanding of this in-service?	Somewhat helpful			0
	Neutral	1		1
	Helpful	4	1	5
	Very helpful	11	6	17
How helpful would you rate the quality of this presentation overall?	Not at all helpful			0
	Somewhat helpful			0
	Neutral			0
	Helpful	1	1	2
	Very helpful	15	6	21

Results for UVMHC Inpatient Psychiatry Staff

A total of 16 staff members attended the educational in-service sessions, which included a one nurse manager, two mental health technicians, and 13 staff nurses. The educational level of the staff nurses ranged from Associate to Masters prepared Registered Nurses (RN)s. All of the staff participants were able to identify with one of the common presenting cases, and identify an alternative therapeutic sensory approach to help either the stimulated or inhibited behavior.

Below are some examples of the case based scenarios:

- Patient presenting with psychosis. Symptoms may include delusional thoughts, hallucinations, bizarre behavior, and disorganized speech. Therapeutic tools identified: calm approach, less directive, deep pressure, allow patient to warm up to environment,

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decrease stimulation, give them space, provide heavy work activities such as pacing, exercise, and weighted modalities.

- Patient presenting with mania. Symptoms may include abnormally elevated mood, insomnia, grandiose notions, increased speed or volume of speech, disconnected and racing thoughts, and increased sexual activity level. Therapeutic tools identified: directive approach, decrease environmental complexity, limit choices, rocking chairs, weighted blanket/vest, and structured art projects.
- Patient presenting with depression. Symptoms may include sadness, loss of interest or pleasure in their usual activities, difficulty concentrating, mood swings, and frequently with feelings of worthlessness, hopelessness, or helplessness. Therapeutic tools identified: activities that increase alertness such as rapid head changes, rocking in a rocking chair/glider, encouraging movement and exercise, random movements such as bouncing, jumping, spinning, and weighted blanket/vest.
- Patient presenting with anxiety or agitation. Symptoms may include restlessness, poor sleep and insomnia, trouble concentrating, feeling tense, chest pain, lightheadedness, trouble breathing, hyperventilation, and even overwhelming panic with a feeling of losing control. Therapeutic tools identified: deep breathing, inhibitory actions through vibration, walking, isometric exercise, stress ball/koosh, rocking, tactile manipulative, and weighted blanket/vests.
- Patient presenting with PTSD or trauma. Symptoms may include recurrent thoughts of an event, flashbacks, bad dreams, emotional numbness, reduced interest or involvement in work, intense guilt, irritability, feeling ‘on edge,’ and avoidance of thoughts/situations that

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remind one of the trauma. Therapeutic tools identified: deep pressure interventions, weighed blankets, weighted shoulder pads, beanbag tapping, and beanbag chair.

Table 2 and Table 3 show the summary of results of each group in a graph format. Each question was evaluated by the participants' rating of: not at all helpful, somewhat helpful, neutral, helpful, and very helpful. Further breakdown of each evaluating question is also outline in subsequent graphs in Table 4 (a-g).

Table 4a shows the participants' rating of the helpfulness of sensory modulated approach is to their current practice. 100% of staff members thought the sensory modulated approach was very helpful to their current practice.

Table 4b shows the participants' rating of the helpfulness of this teaching of sensory resources to their understanding on how to approach a patient in distress. 25% of the staff reported it was helpful, while 75% reported it as very helpful.

Table 4c shows the participants' rating of how helpful the training was in guiding them to select the best sensory resources for a patient. 19% of the staff reported it was helpful, while 75% reported it as very helpful, and 6% maintained a neutral position.

Table 4d shows the participants' rating of how helpful was this in-service for increasing knowledge of sensory resources. 31% of the staff reported it was helpful, and 69% reported it as very helpful.

Table 4e shows the participants' rating of their knowledge about the use of sensory resources prior to this presentation. Six percent of the staff reported it as not at all, 19% reported it as somewhat well, six percent maintained a neutral position, 19% reported well and 50% reported it as very well.

Table 4f shows the participants' rating of how helpful the 'common presentations' activity was to their understanding of this presentation. Six percent of the staff reported it as neutral and 25% reported it as helpful, while 69% reported it as very helpful.

Table 4g shows the participants' rating of how they would rate the quality of this presentation overall. Six percent of the staff reported it as helpful and 94% reported it as very helpful.

Results for Undergraduate Nursing Students

A total of ten undergraduate students were present during the presentation. However, only seven of those students completed the evaluation form after the educational in-service.

Table 4a shows the participants' rating of the helpfulness of sensory modulated approach is to their current practice. 14% of student reported it as helpful and 86% of students thought the sensory modulated approach was very helpful to their current practice.

Table 4b shows the participants' rating of the helpfulness of the teaching of sensory resources to their understanding on how to approach a patient in distress. 29% of the students reported it was helpful, while 71% reported it as very helpful.

Table 4c shows the participants' rating of how helpful was this training in guiding them to select the best sensory resources for a patient. 29% of the students reported it was helpful and 71% reported it as very helpful.

Table 4d shows the participants' rating of how helpful the in-service was in increasing knowledge of sensory resources. 14% of the students reported it was helpful, while 86% reported it as very helpful.

Table 4e., shows the participant's rating of their knowledge about the use of sensory resources prior to this presentation. There was a mixed review amongst the students, as 14%

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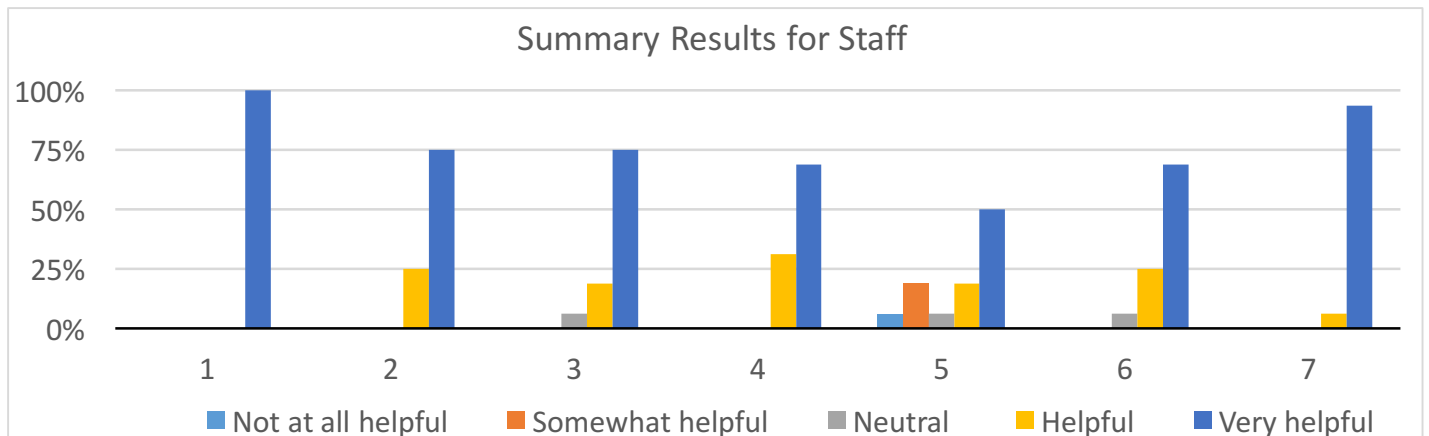
reported it as somewhat well, 29% maintained a neutral position, 14% reported it as well, and 43% reported it as very well.

Table 4f., shows the participants’ rating of how helpful the ‘common presentations’ activity was to their understanding of this presentation. 14% of the students thought it was helpful, while 86% reported it as very helpful.

Table 4g shows the participants’ rating of how they would rate the quality of this presentation overall. 14% of the students thought it was helpful and 86% reported it as very helpful. It is also important to note that none of the respondents reported it as not helpful.

While comparing the overall ratings between the two groups of inpatient psychiatry staff and students, it is possible that these two populations saw the situational context as less useful because of their current level of licensure/practice autonomy. The educational in-service itself provided a very effective learning opportunity for both groups, as inferred from the post-evaluation form. Many of the participants expressed that they were not entirely sure about why inpatient psychiatry was implementing a room dedicated to sensory resources, but after gaining some basic knowledge about the topic, it has helped them better grasp alternative therapeutic tools for dealing with patients with agitation. The discussion following the PowerPoint presentation with the undergraduates focused on the availability of various therapeutic tools to use with psychiatric patients.

Table 2.



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Table 3.

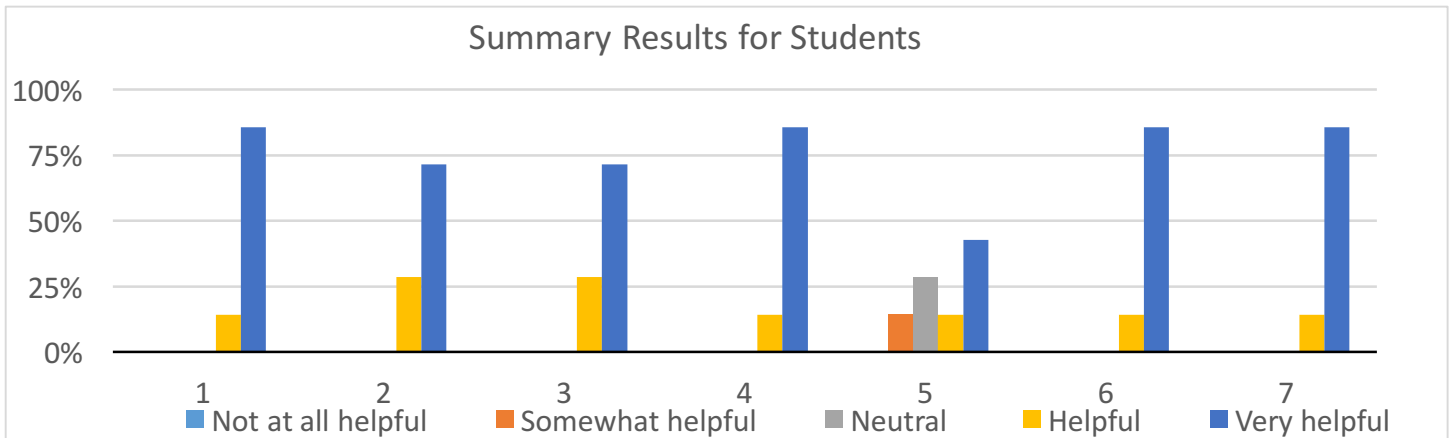


Table 4a.

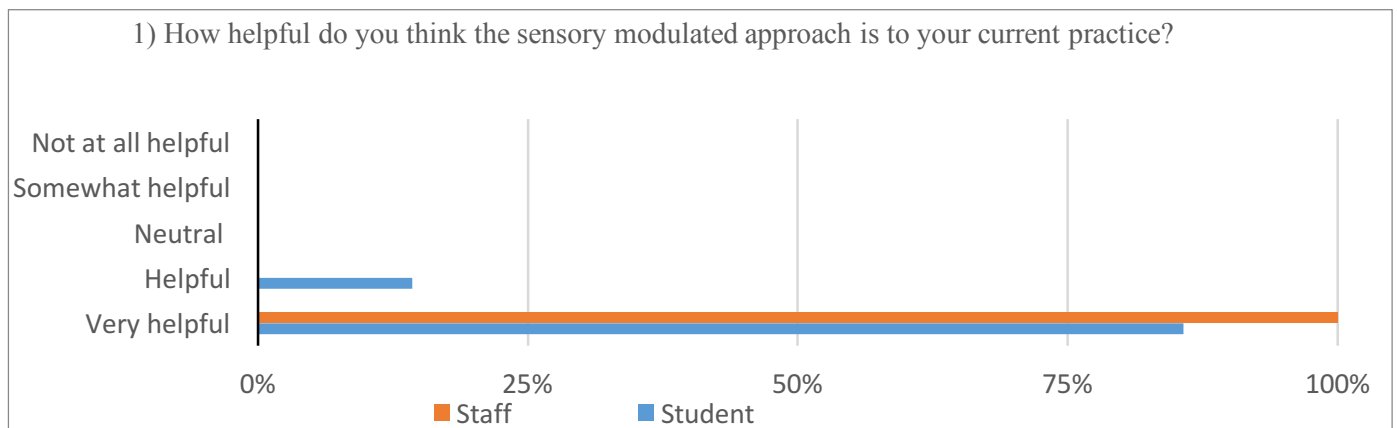
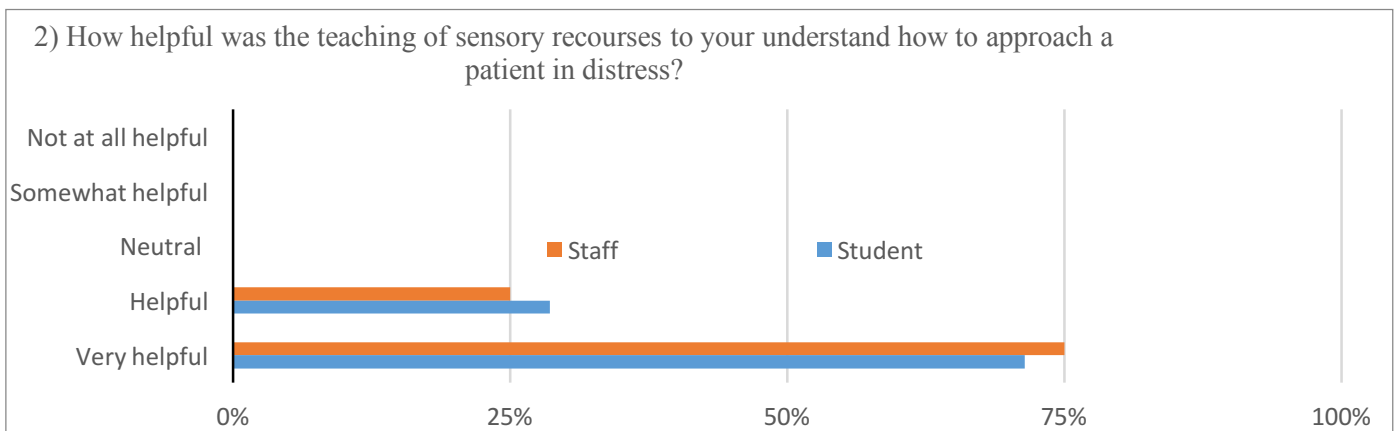


Table 4b.



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Table 4c.

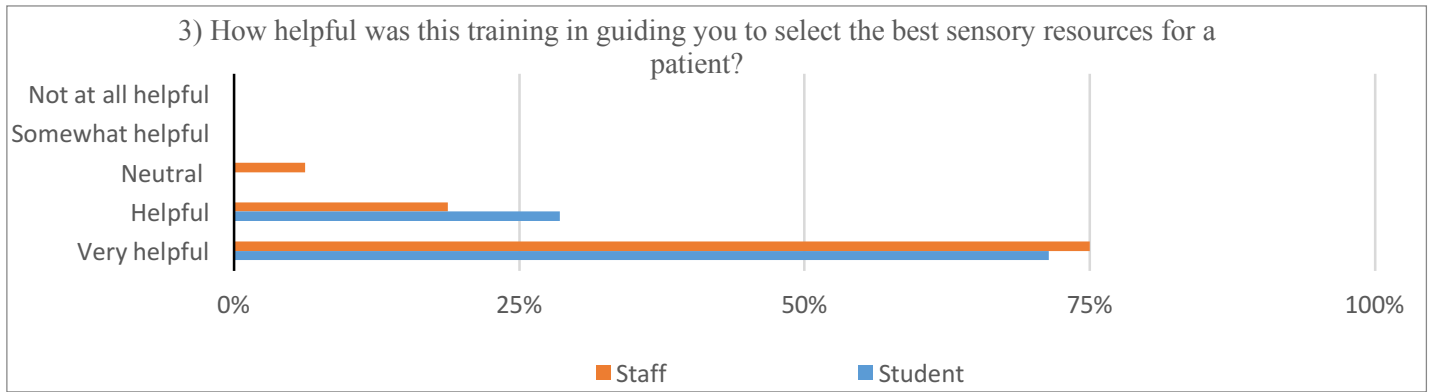
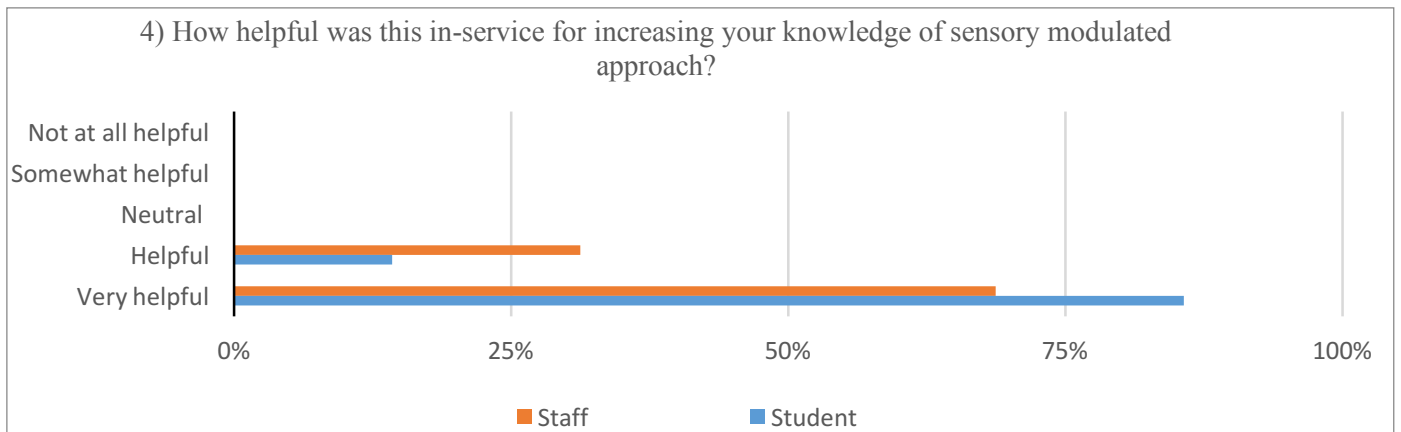


Table 4d.



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Table 4e.

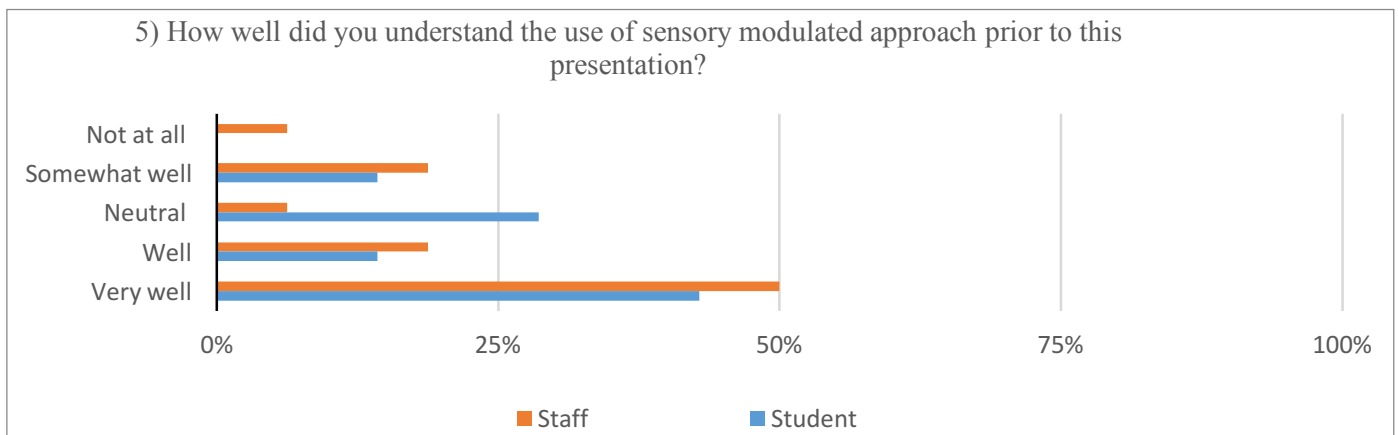


Table 4f.

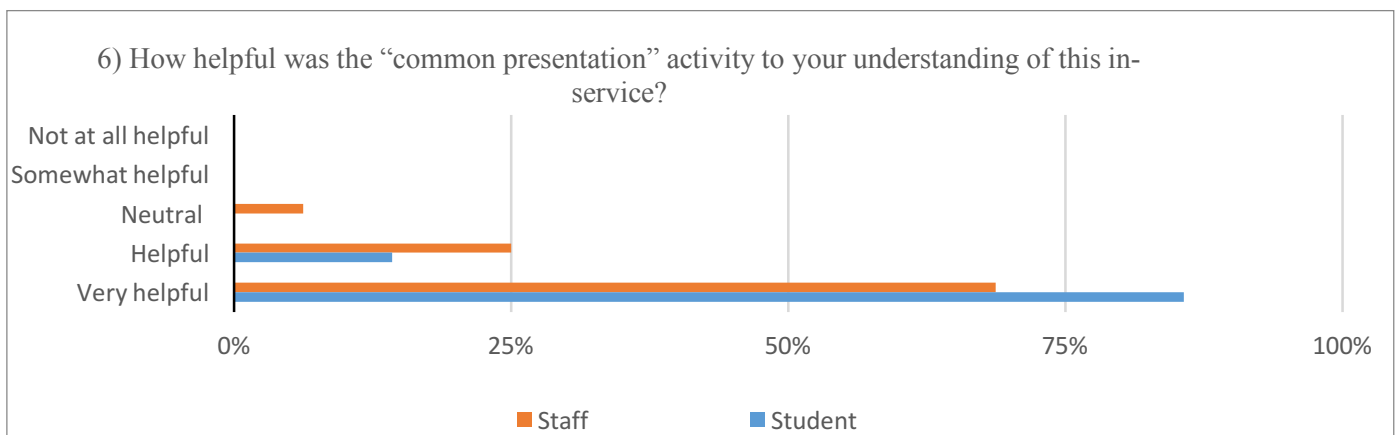
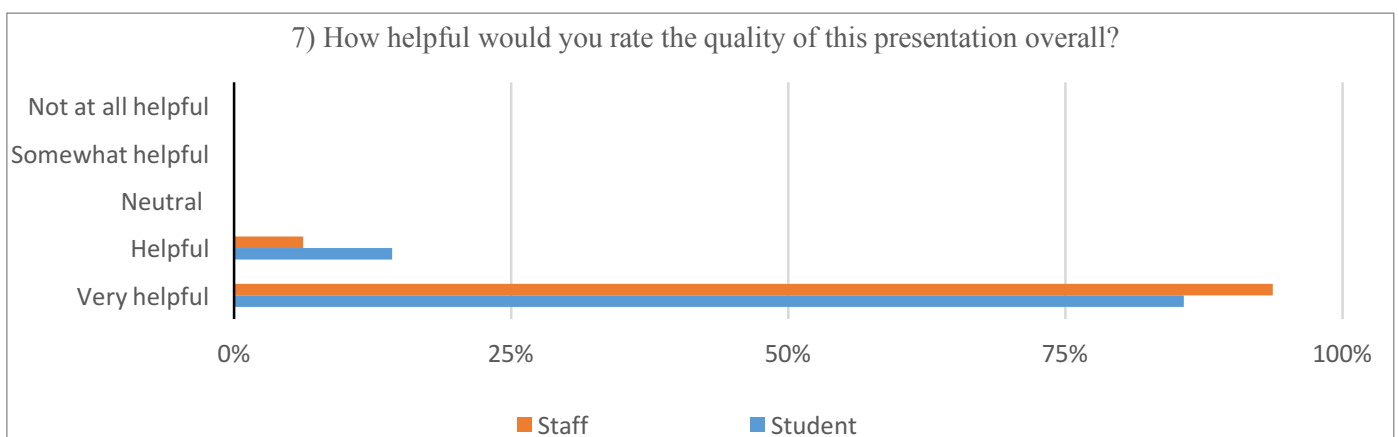


Table 4g.



Implication for Advanced Nursing Practice, Education, Research and Policy

There are various reasons why this educational in-service was beneficial for all levels of psychiatric nursing practice at UVMHC inpatient psychiatry. Since the initiation of this project, construction plans were made to accommodate a dedicated room for inpatient psychiatry patients to freely use sensory resources to help alert or slow down their stimulus. All inpatient psychiatric staff will be educated on items and protocols used once the sensory room is fully furnished. The educational in-service and PowerPoint presentation helped to form a bridge between the staff's knowledge, and the implementation of sensory modulated approach as an adjunct therapeutic tool to de-escalate patients. Sensory modulated approaches are designed to assist patients in a state of emotional upheaval, to effectively calm their emotional and physiological arousal, thus, lowering their levels of distress and teaching them how to self-regulate. Educating the staff members of the importance of utilizing these approaches as an alternative tool can aid in decreasing incidents of seclusion and restraint. A further opportunity for research would be for the inpatient psychiatric staff to track the patients' use of sensory resources and note how helpful it was in calming or stimulating them.

Dr. Ayres's theory of sensory integration and implementation of sensory resources as a routine therapeutic tool, can help psychiatric staff provide better care to patients. One of the benefits of having an organized framework of alternative therapeutic sensory resources are to guide psychiatric nursing practice included differentiating nursing as a discipline and articulating nursing's distinct perspective. This is particularly important for Advance Practice Registered Nurses (APRN) who utilize a nursing, rather than medical, model in treating psychiatric patients. This project communicated the distinct nursing knowledge of APRNs. The holistic nursing approach is one of the differences between a physician assistant (PA) and an APRN. The PA role

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for an APRN is limiting and projects such as this one help APRNs operate to a full scope of practice and autonomy

Sentinel events or aggressive episodes are damaging for everyone including the patients, staff, and the unit as a whole. The inpatient psychiatry staff members and undergraduate nursing students expressed an understanding of therapeutic uses of sensory modulated approaches to patients' anxiety and agitation after participating in the educational in-service. This also served to validate and acknowledge the stress that direct-care nurses are under each shift. It is helpful to provide a basic framework that helps to understand patients' current behavior, predict future outcomes, and identify therapeutic tools that would decrease or eliminate patient behaviors that could result in agitation or aggression. Exposing nurses to relevant, evidence-based practices enhances the quality of care provided.

The change of nursing culture is vital to psychiatric nursing units. Inpatient psychiatric staff has been challenged by acute and potentially violent patients. Does having additional and alternative tools to de-escalate a patient provide nurses with a sense of safety? According to Bower, McCullogh, & Timmons (2003), a sense of safety is a key variable in decreasing the use of seclusion and restraints. Therefore, providing nurses with evidence-based tools could potentially help increase the staff's sense of safety and efficacy, and further decrease some stress.

The PowerPoint presentation was not evaluated as a stand-alone delivery of educational information. The SharePoint website is not able to count the number of views, and an electronic evaluation form was not created for this project. The evaluation of results from the website viewing and the in-service presentation of the PowerPoint presentation could be considered as future comparison. This project was unable to measure the impact the educational in-service could have on reducing the use of seclusion and restraints, as this was beyond the scope of this

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project. A more longitudinal study could be performed in the future to measure the participants' perceived helpfulness of the educational in-service, versus the actual use of sensory modulated approaches. This could be beneficial to note effectiveness.

Furthermore, the actual use of a sensory room will provide a naturalistic study design opportunity. The theory of sensory integrated therapy and therapeutic use of sensory resources in response to patients' agitation, would be valuable in providing a conceptual framework that could guide future research. A researcher could develop a tool that measures the response of a staff member's and/or patient's perceived effectiveness of the use of sensory resources. This can be done by identifying patients' increase in self-awareness, ability to self-nurture, ability to cope with triggers, and ability to engage in social activities after incorporating therapeutic sensory modulation approaches as part of the treatment plan. The implementation of a dedicated sensory room provides the opportunity for qualitative and quantitative design study. That data could include the patient's experience and effectiveness of sensory integration to decrease agitation.

One of the implications of the project was highlighted in the literature review. Martin and Suane (2012), in their study of the use of sensory rooms and sensory resources, emphasized the importance of staff education to support confidence and acceptance in the use of sensory approaches. Thus, the need for evidence-based educational in-services to provide basic knowledge and training to inpatient psychiatric staff. APRNs could advocate for funding be provided to conduct a study evaluating the effectiveness of educational training for staff member's ability to identify alternative sensory approaches in preventing patient agitation.

Limitations of the Project

There are multiple factors that could have affected the perceived overall helpfulness of this educational in-service. Limitations of the undergraduate nursing students

could be related to a low interest in the concepts presented because this is not their chosen field, the unfamiliarity of the presenter, their limited knowledge of this area of practice, and finally the difference between an audience that chose to see the in-service, compared to one that was required as part of clinical participation.

Another limitation of the project was not having the completed sensory room prior to the educational in-service. Multiple nurses expressed interest in having the presentation provided once the sensory room is fully completed and ready for patient use. It may be difficult for staff members to associate and make a connection between the educational in-service and the actual practice of using sensory modulated approaches with patients due to the disconnect and time lapse between the two. Therefore, the staff members may lack the receptiveness of the presentation.

There was a low rate of attendance from inpatient psychiatry staff. Multiple nurses expressed interest in coming to the in-service, however, they were unable to get away from their shift work. Only 16 staff members out of 30 nurses and 25 mental health technicians attended the in-services. Since this was a voluntary in-service, it is possible that nurses and other staff that could most benefit from the educational presentation did not come. Rather, only people who already had an interest in this topic attended.

There appeared to be a low interest from other staff members on the topic of discussion, as evidenced by the staff turn out. One reason for this may be because the topic was requested by the Unit Manager and Educator, not particularly by inpatient psychiatry staff members. Staff members may also be less motivated to implement a new change in the unit.

There was an opportunity for all participants to explore and take part in using some of the sensory resources. The staff and nursing students both verbally expressed their appreciation of

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having some of the actual sensory resources to practice and familiarize themselves with, and stated that was helpful. However, the effectiveness of this dynamic involvement was not evaluated as part of the post in-service evaluation form. A question asking the participants to rate the level of helpfulness of applying hands-on experience with sensory resources would provide the effectiveness of active exploration as a part of the educational in-service.

Comparison of Project Outcomes with Review of the Literature

The outcomes of this project included exposing inpatient psychiatric staff members and undergraduate nursing students to sensory modulated practices as an alternative therapeutic tool to help de-escalate patients in distress. The focus of the educational in-service was to increase staff comfort with using sensory modulated practices, and increase knowledge regarding the power and potential of the calming or stimulating senses as treatment modalities. Chalmers et al. (2012) and Lee et al. (2010), suggested that education should focus on theory and evidence, how to identify early signs of distress, as well as opportunities to explore sensory resources, and to support consumers to use equipment safely and effectively. Furthermore, the successful implementation of sensory modulated practice depends moderately on acceptance from all staff. Due to the high rates of reported helpfulness from this educational in-service, it is hopeful that sensory modulated approaches can further enhance engagement and meaningful connections between staff members and patients, creating an opportunity for developing trust. Implementing new practices that utilize sensory modulated approach can empower patients to be active partners in their treatment process (Chalmers et al., 2012).

A restraint-free culture needs to become standard practice for the safety of patients. Cummings et al. (2010) validate the importance of creating a restraint-free culture of safety for nurses and other staff members by empowering them to create an environment of change by

providing continuing education on alternatives to more coercive options such as restraints. The dedicated sensory room is a participatory project that will encourage active involvement from all staff members and patients to support the implementation of sensory integrated approaches as a routine part of the treatment plan. Creating awareness and giving all staff confidence in utilizing a wide variety of sensory approaches are crucial in instigating a cultural change (Scanlan & Novak, 2015). The staff should be supported in this period of change, and at the same time, empowered to make changes in their own therapeutic practices. Ultimately, it should produce a culture change of comfort, instead of constraint.

When inpatient psychiatric staff members better understand the importance of integrating sensory modulated approaches, and the difficulties that impaired sensory or deprivation creates, the staff can be proactive in creating a sensory modulated plan that prevent seclusion and restraint use, and plan for crisis intervention strategies that are specific to a patient's individual needs. Practices include: a quick sensory screening, exploration of sensory resources, development of individualized sensory modulated plans, modification of the environment, and education of patients, families and care providers (Champagne, 2003, 2006; Champagne & Stromberg, 2004; LeBel et al, 2010; LeBel & Champagne, 2010; Sutton & Nicholson, 2011). Active participation of applying sensory integrated approaches can create a more positive relationship between patients and staff, further helping patients to develop self-management strategies that can be carried over to the post-discharge environment.

Research suggests that using sensory modulated approaches as an alternative therapeutic tool can reduce seclusion and restraints. Best practice guidelines for the reduction of seclusion and restraint recommends the use of sensory approaches as part of comprehensive program for

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the reduction of restraint and seclusion (MacDaniel et al, 2009; Scanlan & Novak, 2015). The favorable outcome of this educational in-service demonstrates the positive effectiveness of providing staff education. Increased knowledge and understanding allow inpatient staff members to adopt the sensory modulated approach as a way to further help reduce behavioral disturbances, empower staff and patients to build positive relationships, and provide alternative strategies to more coercive practices.

Conclusion

The consequences of agitation and aggression on inpatient psychiatry units can have a negative impact for staff, patients, and the unit as a whole. The reduction of emergent events due to an escalation in patients' distress level and the use of seclusion and restraints are important quality indicators for excellence in psychiatric care. The educational offering of sensory modulated approaches empowers staff members by providing an alternative therapeutic tool that enhances the overall quality of nursing care and patient outcomes. The evaluations of this in-service demonstrated that participants found this to be an effective learning opportunity and relevant to their daily nursing practice. Identifying sensory modulated approaches and practices for common presentation of behaviors was identified as being useful. By providing education on alternative therapeutic approaches in response to patients' distress, it is in hopes that this project will support the goal of reducing seclusions and restraints. Thus, increasing knowledge of evidence based therapeutic responses to patient's agitation and distress is an invaluable agenda item for advance practice nurses working with psychiatric patients and psychiatric staff.

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Appendix A- Powerpoint presentation content objectives and topics

After completion of this in-service, the learner will be able to:

1. Describe sensory modulated interventions.
2. Identify sensory practices and potential sensory problems related to specific psychiatric diagnoses.
3. Identify strategies for maintaining patient and caregiver safety during treatment of an agitated patient.
4. Use specific sensory resources appropriate for clinical examples of crisis situations.

Topics covered in the educational in-service:

1. Background Information on the sensory integrated treatment approach
2. The power of the senses
3. Evidence based practices
4. Calming and Alerting resources
5. Cased based scenarios on patient behaviors and approaches
6. Safety Issues
7. The do's and don't of utilizing sensory integrated approaches

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Appendix B- Case Based scenarios

Below are some examples of the case based scenarios:

1. Patient possibly presenting with Psychosis. Symptoms may include delusional thoughts, hallucinations, bizarre behavior, and disorganized speech. Therapeutic tools identified: calm approach, less directive, Deep pressure, allow patient to warm up to environment, decrease stimulation, give them space, provide heavy work activities such as pacing, exercise, and weighted modalities.
2. Patient possibly presenting with Mania. Symptoms may include abnormally elevated mood, insomnia, grandiose notions, increased speed or volume of speech, disconnected & racing thoughts, and increased sexual activity level. Therapeutic tools identified: directive approach, decrease environmental complexity, limit choices, rocking chairs, weighted modalities, and structured art project.
3. Patient possibly presenting with Depression. Symptoms may include sadness, loss of interest or pleasure in their usual activities, difficulty concentrating, mood swings, and frequently with feelings of worthlessness, hopelessness, or helplessness. Therapeutic tools identified: alerting activities that make the head change direction rapidly, rock in rocking chair/glider, encourage movement and exercise, random movements such as bouncing, jumping, spinning, and weighted modalities.
4. Patient possibly presenting with Anxiety or Agitation. Symptoms may include restlessness, poor sleep and insomnia, trouble concentrating, feeling tense, chest pain, lightheadedness, trouble breathing, hyperventilation, and even overwhelming panic with a feeling of losing control. Therapeutic tools identified: deep breathing, inhibitory actions through vibration, walking, isometric exercise, stress ball/koosh, rocking, tactile manipulative, and weighted modalities.
5. Patient possibly presenting with PTSD or Trauma. Symptoms may include recurrent thoughts of an event, flashbacks/bad dreams, emotional numbness, reduced interest or involvement in work, intense guilt, irritability, feeling “on edge,” and avoidance of thoughts/situations that remind person of the trauma. Therapeutic tools identified: deep pressure interventions, weighted blankets, weighted shoulder pads, beanbag tapping, and beanbag chair.

Appendix C- Sensory Handout

Senses	Alerting, Stimulating, Arouse	Calming, Relaxing, Destress
Proprioception— How much force used with joint and body movement	Jogging, step aerobics, jumping jacks, jumping rope, hopping, stomping, exercise bike, treadmill, obstacle course, scavenger hunt, nature walk	Weight lifting, yoga, Tai-chi, bean bag tapping, walking, "heavy work"- exercise bands, Stress balls/hand tools, pencil grips, clay work/putty, hand exercisers, painting nails,
Vestibular— Changes in head position and movement	Roller coaster, spinning quickly, and moving around on a therapy ball.	Rocking chair, glider, swinging, slow head rolls, slow paced walking, seat cushions
Tactile— Touch	Light touch, tickling, fiddling with a kiosk ball, sensation of bug crawling	Deep pressure, weighted blanket, weighted shoulder/neck pads, sitting on bean bag chair, stress ball, vibrating pillow, lotions/oils, bean bag tapping, fidgets
Auditory— Hear	loud and quick paced music, noise in milieu, alarms, blue lights.	Soft music, ocean or waterfall sounds, meditation tapes.
Visual— See	Modern art, bright colors, music videos	Serene murals, pastel colors, watching fish in an aquarium, soft lighting.
Olfactory— Smell	Strong perfume, lemon or mint scents, foul body odor	Vanilla, lavender scented lotions or aromatherapy
Gustatory— Taste	Fire ball or sour candies, hot foods, spicy taste, pretzels, popcorn, carrots.	Chocolate, hot tea, warm soup/broth, hard candy, milk shakes, slices of banana.

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PSYCHIATRY

Appendix D- Evaluation Form

Instructions: Circle the best word that defines your answer.

1. How helpful do you think the sensory modulated approach is to your current practice?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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2. How helpful was the teaching of sensory recourses to your understanding of how to approach a patient in distress?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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3. How helpful was this training in guiding you to select the best sensory resources for a patient?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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4. How helpful was this in-service for increasing your knowledge of sensory modulated approach?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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5. How well did you understand sensory modulated approach prior to this presentation?

Not at all	Somewhat well	Neutral	Well	Very well
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6. How helpful was the “common presentation” activity to your understanding of this in-service?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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7. How helpful would you rate the quality of this presentation overall?

Not at all helpful	Somewhat helpful	Neutral	Helpful	Very helpful
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