Clay handbuilding among children with spinal cord injuries: Towards educational protocol development

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Clay hand building; Children; Spinal cord injuries; Educational protocol

Abstract
Objectives: This study identifies and describes children with spinal cord injury with paraplegia and examines an intervention that can contribute to nursing education and practice.
Methods: This qualitative Hermeneutic phenomenological research with multiple triangulations which include data, method, and investigator triangulation, with iterative approach in data analysis were utilized in data collection and analysis. A total of 8 children with their parents or guardians were purposively selected. A semi structured interview, storytelling and clay hand building was used to collect data. Analysis of molded clay figures was done by the child's personal interpretations and further interpreted by an expert in the field of psychology and art therapy.
Results: The experiences of children have revealed five themes and seven categories. The children’s experiences are as follows; happy memories, representation of illness and hospital confinement, love for family, faith, and hope.
Conclusions: Based on the results, an educational protocol for clay hand building was found effective.
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Introduction
Spinal cord injury may render a person dependent on caregivers. As a nurse care provider, and educator the researcher had met various cases of clients who experienced spinal cord injury. It is essential that support to these clients be provided from the beginning and treat these individuals with respect as they begin to rebuild their lives, remembering that the disease and rehabilitation process is both physically and emotionally interfering. Problems in role function arise as normal activities are disrupted that these individuals occupy in society fulfilling the need for social integrity.

Spinal cord injury is a debilitating condition where the most obvious deficit is an impaired motor function ranging from minor deficits to complete paralysis of those parts of
the body innervated by spinal segments below the level of lesion.\textsuperscript{1} It can be Acute spinal cord injury or a sudden traumatic injury that either results in a bruise, a partial injury or a complete injury to the spinal cord. While partial spinal cord injury is sometimes called an incomplete injury were the spinal cord is able to carry some messages to and from the brain to the rest of the body resulting in a near-total loss of motor and sensory function.\textsuperscript{2}

Children with spinal cord injuries faces a lot of challenges, one of these are for them to stop their schooling due to their conditions which most of the time requires long treatment, adaptation and hospitalization. The researcher having a diverse experience in orthopedic nursing and education for 17 years tried to create means of developing some solutions by utilizing an independent nursing action like clay hand building. Art therapy in the form of clay hand building as a divertional intervention served as a medium to allow children with spinal cord injuries to express thoughts, feelings and desires that are sometimes difficult to express verbally.

The researcher entered the education and nursing profession for a multitude of reasons; hope, passion, and determination to somehow make a difference in the lives of patients specifically those with spinal cord injuries. The study helped the researcher, nurses and their parents gain an in depth analysis and understanding of children with spinal cord disabilities. With this study, better understanding of their experiences will equip all people responsible for their care, enough knowledge, skills and attitude that will facilitate the best possible care for them, through the development of an educational protocol that will serve as a guide in performing the propose independent nursing action will help improve nursing education and practice.

Method

This study utilized a qualitative hermeneutic phenomenological research design. Qualitative research is a systematic, subjective approach used to describe life experiences and giving meaning.\textsuperscript{3} Phenomenology is particularly suited to disciplines that place high value on understanding the patient/client experience. It is a careful and systematic reflective study of the lived experience.\textsuperscript{4} The aim of phenomenology in this study is to generate understanding into the essential nature of a particular phenomenon under investigation which is the experiences of children with spinal cord injuries.

Multiple triangulation with iterative process of data analysis were utilized in this research. Triangulation means the researcher uses different methods in order to achieve collaboration of results achieved from different approaches which increase the validity of the study.\textsuperscript{5} Triangulation is a useful strategy for the enhancement of credibility.\textsuperscript{6} Three types of triangulation were use in this study. First is data triangulation, which refers to use of different data sources.\textsuperscript{7} Data from this research were generated from the child diagnosed with spinal cord injuries and the child's parent or guardian. Second is method triangulation in which multiple data collection methods were used, such as semi-structured interviews, clay hand building and storytelling and lastly investigator triangulation in which more than one person is used to collect, analyze, or interpret set of data.\textsuperscript{6} While data analysis was done by the researcher, a registered psychologist and an art therapist were consulted and collaboration was utilized.

Children were selected using purposive sampling. Saturation of data was the basis in determining eight (8) participants. Saturation of data is a phenomenon that occurs when additional sampling provides no new information, or there is a redundancy of previously collected data. Sample size in qualitative study is determined when saturation of data occurs.\textsuperscript{7} For the purpose of homogeneity, the following criteria for the selection of children participants were utilized: (1) diagnosed with spinal cord for at least 1–3 months, (2) with paraplegia, (3) ages 10–13 years old, (4) regardless of gender, (5) with available parent or guardian to sign the consent in behalf of the child. In the conduct of this research study, the researcher adhered to the principles of ethical standards of informed consent, confidentiality, anonymity, and respect for person, beneficence and justice.

Analysis and interpretation of molded clay figures were done individually at the bedside by the child participants by allowing them to describe the meaning of the figures they formed in relation with their experience as a child with spinal cord injuries. A scheduled appointment with a registered art therapist and registered psychologist were done for the interpretation of the art pieces. Thematic analyses were both utilized by the two experts. The researcher then triangulated the findings by discussing and fusing the common themes elicited by the child participants, registered art therapist and registered psychologist.

Results

The lived experiences of children with spinal cord injuries in a selected tertiary specialty hospital in Quezon City has revealed five themes (5) themes and seven (7) categories that emerged during data analysis in which the researcher organized the data. These can be summarized into three (3) major events, Before the Injury, During Hospitalization and the Future.

Discussion

The following were the themes generated

**Before the Injury.** The theme ""Mga Ala-Ala Bago Ma Ospital"" (Memories Prior to Hospitalization) is a clear representation of the participant’s recollection of their experiences prior to injury and hospitalization. These includes ""Mga Laro"" (Plays) which is a depiction of their usual play experiences, ""Mga Mahal Ko sa Buhay"" (Loved Ones) which represent their good memories usually with family members, and ""Eskuwela"" (The School) where the participants reminisce their usual school experience. **During hospitalization.** The participants’ confinement reveals the following; ""Buhay Ospital"" (Life in the Hospital) which includes scenarios and situations where the children with spinal cord injuries faced difficulties, pains and different struggles due to their confinement. Categories like ""May Sakit Ako"" (I am Sick) reveals awareness of the children with their present condition and ""Mga Masasakit na Ala-Ala"" (Painful Memories) are situations and experiences that
caused tremendous physical, emotional and psychological sufferings. The theme “Pagmamahal sa Pamilya” (Loved for Family) revealed how each participants cherished, appreciate and prized every members of their family, which are source of strength for them. Loved and faith for God despite of the experience is well manifested by these children with the theme “Tiwala sa Diyos” (Trust in God). The future. Hope amidst all the personal life encounters of these children drives them to have a positive outlook in life. The theme “Sinag ng Pag-Asa” (Glimmer of Hope) is a clear manifestation that things will bring a positive change like “Gagaling Ako” (I Will Get Well) and that they can achieve their hopes and dreams, “Mga Pangarap” (Dreams).

Conclusions

The participants of this study showed that they have experienced difficulties during the process. The injury they sustained tested their physical, emotional and psychological well being. But despite of all the hardships the participants viewed the situation an opportunity to be optimistic in life. Thinking positively and with strong support systems is one of the coping strategies that they utilized in order to manage the challenges. With strong faith and well-built desire that things will turn positive, all the participants look forward for their hopes and dreams in life.

Clay handbuilding showed a positive promise of being used by nurses as a divertional therapy for children with spinal cord injuries.

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