

Nursing Procedures and Stress: A Study of Hospitalized Children Aged 6-10

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ABSTRACT

Background

Every child is suffering with stress after hospitalization, but certain events at hospital may lead to excessive stress. To understand those stressors, we have taken an aspect to focus that is nursing procedures related stress.

Objectives

To measure the stress level of hospitalised children related to selected nursing procedures.

Materials and method

400 hospitalised children were part of this descriptive survey, aged between 6-10 years. By using convenient sampling method children were selected for the study. 4 nursing procedures were selected for measurement of stress & to measure stress Children's Emotional Manifestation Scale (CEMS) was used.

Result

Results of the study shows that, majority of 69.5% children had high stress, 12.5% were having very high stress and 16% were having average level of stress; while only 1.25% & 0.75% children reported they have low stress & very low stress respectively, none of the child felt stress-free about nursing procedures.

Conclusion

Children are suffering with stress during hospital stay but simultaneously they are more stressed about nursing procedures. Action plan has to be made to reduce stress level of children to make them comfortable.

Keywords: Stress, Nursing Procedure, Children, Assessment

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1. INTRODUCTION

Hospitalization can be a distressing event for children, especially in nursing procedures. Background: Children aged 6-10 years old are at a developmental stage in life wherein they are more aware of their environment and medical interventions but often still lack the coping skills to address the stress associated with these situations. Hospital-based nursing procedures that may be absolutely routine, can cause meaningful stress and anxiety for young patients and impact not only their health outcomes, but their experiences within hospital.

The prevalence of stress in pediatric patients undergoing medical procedures has been well-documented. For instance, children often exhibit increased levels of anxiety and stress in response to medical interventions, manifesting in both physiological and psychological symptoms [1]. Procedural stress can have long-term effects on children's mental health, influencing their future interactions with healthcare systems [2].

Developing successful therapies requires a thorough understanding of the particular elements that contribute to procedural stress in hospitalized children. The degree of stress that the child suffers is influenced by a number of factors, including the procedure itself, the child's prior medical experiences, and the presence of parents [3]. In addition, the methods used by healthcare professionals, such as their communication style and the employment of diversionary tactics, can greatly reduce or increase a child's stress [4].

The objective of this study is to measure and analyze the stress levels associated with nursing procedures in hospitalized

children aged 6-10 years. By identifying the key stressors and evaluating the effectiveness of current coping strategies, this research aims to contribute to the improvement of pediatric nursing practices and the overall hospital experience for young patients. Enhanced understanding in this area will enable healthcare professionals to tailor their approaches to reduce stress, ultimately promoting better health outcomes and more positive experiences for children during hospitalization.

2. METHODS & MATERIALS

Objective

To measure the stress level of hospitalised children related to selected nursing procedures

- Research design: A descriptive survey research design using only a post-test was used to conduct the survey.
- Setting of the study: tertiary care facilities served as the study's setting from Karad city of Maharashtra state of India.
- Sample & Sampling technique: A purposive sample technique was used to select 400 hospitalized children aged 6 to 10.
- Inclusion & Exclusion Criteria: Hospitalized children aged 6 to 10 who consented to participate in the study were included, but severely sick children who refused to take part in the study were excluded.
- Tool: The following assessment scales were used to collect data from children:
 - The demographic information includes the following: dwelling location, child's school status, sex, age (in years), and history of prior hospitalization. in order to gather demographic information.
 - The Children's Emotional Manifestation Scale (CEMS), which measures children's stress [5]
- Ethical Considerations: KVV (Deemed to Be University), Karad, granted ethical clearance. The study subject gave informed, written consent, and the participant's parents also provided consent. (KIMSDU/IEC/05/2021B, Reference No).

3. RESULTS

Table No. 1: percentage distribution of hospitalised children according to characteristics of samples
N=400

| Sr.No. | Demographic Variables | Percentage | Frequency |
|----------|--|------------|-----------|
| 1 | Age of Children | | |
| a. | 6 year | 27% | 112 |
| b. | 7 year | 15% | 67 |
| c. | 8 year | 13% | 59 |
| d. | 9 year | 16% | 74 |
| e. | 10 year | 30% | 128 |
| 2 | Sex | | |
| a. | Male | 58% | 232 |
| b. | Female | 42% | 168 |
| 3 | Schooling Status of Child | | |
| a. | 1 st Std | 37% | 148 |
| b. | 2 nd Std | 14% | 56 |
| c. | 3 rd Std | 21% | 82 |
| d. | 4 th Std | 29% | 114 |
| 4 | Living Area | | |
| a. | Urban | 48% | 192 |
| b. | Rural | 52% | 208 |
| 5 | History of Previous Hospitalization | | |
| a. | Yes | 22% | 88 |
| b. | No | 78% | 312 |

Demographic data in table no. 1 shows that majority of 30% children belongs to age of 10 years, more than half 58% were male participant, 37% children's schooling status was 1st standard, 52% children were living at rural locality, and 78% children noted that, they never experienced hospitalization before.

Table No. 2 Level of stress among hospitalised children regarding nursing procedures

N=400

| Sr. No. | Stress Level | Frequency | Percentage (%) |
|---------|------------------|-----------|----------------|
| 1 | No stress | 0 | 0 |
| 2 | Very low stress | 1 | 0.25 % |
| 3 | Low stress | 7 | 1.75 % |
| 4 | Average stress | 64 | 16 % |
| 5 | High stress | 278 | 69.5 % |
| 6 | Very high stress | 50 | 12.5 % |
| | Total | 400 | 100 % |

Table no 2 showing level of stress of children facing nursing procedures, majority of 69.5% children had high stress, 12.5% were having very high stress and 16% were having average level of stress; while only 1.25% & 0.75% children reported they have low stress & very low stress respectively, none of the participant experienced stress-free about nursing procedure.

Table No. 3 level of stress in percentage among hospitalised children according to each nursing procedure

N=400

| Sr. No | Stress Level | Intramuscular Injection | Intravenous Cannulation | Nebulization | Administration of Oral Medicine |
|--------|------------------|-------------------------|-------------------------|--------------|---------------------------------|
| 1 | No stress | 0 | 0 | 0 | 0 |
| 2 | Very low stress | 0 | 0 | 0 | 1% |
| 3 | Low stress | 0 | 1 % | 2 % | 4 % |
| 4 | Average stress | 3 % | 27 % | 16 % | 18 % |
| 5 | High stress | 68 % | 64 % | 76 % | 70 % |
| 6 | Very high stress | 29 % | 8 % | 6 % | 7 % |
| | Total | 100 | 100 | 100 | 100 |

Table no. 3 showing percentage of stress level of hospitalised children during each nursing procedure. During intramuscular injection procedure majority of children shows high stress 68%, followed by 29% very high stress & 3% average stress. During intravenous cannulation 64% children shows high stress, 27% average stress & very high stress 8% and only 1% showed low stress. Similarly, during nebulization majority of children was in high stress level 76%, 16% average stress, 6% very high stress and 2% were in low stress. Amid administration of oral medications 70% children expressed high stress, 18% average stress, 7% very high stress and 4% & 1% low stress & very low stress respectively. In contrast to intravenous cannulation and nebulization procedures, intramuscular injection procedures caused children to feel more stressed; oral medicine procedures caused them to feel less stressed.

4. DISCUSSION

Multiple factors are associated to the stress level of children, like age, gender, stay within the hospital, previous experience etc [5]. In this study also we considered these factors alongside nursing procedures. As older the child lesser the stress, if child is having previous experience and long stay of hospitalization, he/she feels less anxiety related to nursing procedures. Post traumatic stress disorder (PTSD) are seen among multiple children and hospitalization is one of it. In hospital children have to undergone multiple therapeutic interventions including nursing procedures which may affect on child's psychological status [6]. In current survey we found that procedures like Intramuscular injection and Intravenous Cannulation are leading to high stress level among children where as a routine procedures like administration of oral medication and nebulization are less stressful.

Children may find it more challenging to understand, effectively express, or overcome their feelings of discomfort and

distress while undergoing treatment. Even minor medical procedures can cause a great deal of sadness and suffering for many youngsters. Due to the discomfort involved, children undergoing needle treatments feel stressed and anxious in addition to other unfavorable emotions. Moreover, they often bring great pain and hopelessness to parents and children [7,8].

Understanding children's stress level related to nursing procedure is mastery task as pediatric clinical nurse coz she has to attend the child throughout the stay of child. If she can understand, she can definitely prepare an action plan to reduce stress of children.

5. CONCLUSION

Hospitalised Children are suffering not only with medical interventions but also with the nursing procedures especially painful procedures involved needles, action plan has to be made to reduce children's stress associated with nursing procedures as these procedures are routinely followed in every hospitals

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