

Experiences of Registered Nurses' in Assessing Postoperative Pain among Children: Exploring the Challenges in Effia Nkwanta Regional Hospital, Ghana

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Abstract

Pain is a common occurrence in children after surgery, but it has been neglected over the years. Management of pain is a fundamental human right for everyone who undergoes any surgical procedure. Pain assessment is the initial step of pain management and involves subjective and objective (behavioural and physiological) measures. This study aimed to describe the challenges of registered nurses in assessing post-operative pain among children (0- 3 years)). Descriptive phenomenology was adopted. Purposive sampling was used to recruit nine registered nurses with experience in nursing children after surgery in Effia Nkwanta Regional Hospital (Ghana). The researchers conducted an in-depth interview which was audio-recorded, transcribed verbatim and qualitatively analysed following Colaizzi's approach to descriptive phenomenology analysis. The study findings revealed that nurses have experienced several challenges in assessing post-operative pain, including inadequate knowledge, inadequate resources, structural challenges, time constraints, and child-imposed factors. Given these results, nurses should make opportunities to enhance their skills and utilize evidence-based approaches to formally assess paediatric post-operative pain.

Keywords: Children, Experience, Nurses, Phenomenology, Postoperative.

Introduction

Pain is a common occurrence in children after surgery, but it has been neglected over the years. The International Association for the Study of Pain posits that all people should have access to pain management without discrimination [1], and children are no exception. For pain to be managed effectively, there should be a pain assessment. Pain assessment informs the nurse of what intervention to give since it provides accurate information about the location and intensity of pain and its effect on the individual [2].

Pain assessment in children involves the use of subjective and objective measures. Subjective

measures in assessing pain involve the use of self-reports where there is the verbalization of pain. Objective measures are composed of behavioural and physiological measures. The behavioural measures involve looking at how a child behaves in response to pain, such as facial expression, body movements, and crying. Physiological measures used in assessing pain include assessment of heart rate, blood pressure, respiration, oxygen saturation, palmer sweating, and temperature.

Among the pain assessment measures, the subjective method of pain assessment is identified as the most reliable and accurate measure [3, 4, 5]. However, it comes with certain limitations. Firstly, its usage depends on the

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child's social, cognitive, and communication competence. Secondly, the child's report is influenced by specific reasons, including fear of talking to strangers, disappointing or bothering others, and fear of receiving an injection [6]. For these reasons, verbalization of pain could be done directly by the child or indirectly through proxy reports. The indirect verbalization of pain through the proxy report is where the child informs the parent or caretaker that he/ she is in pain. Internationally, best practice guidelines are available for assessing pain, including the usage of pain assessment tools [7, 8, 9].

Although there are guidelines and pain assessment tools, assessing post-operative pain in children has been identified as challenging than adults [10, 11, 12]. The challenge emanates from the inability of infants and young children to have language or cognitive ability to communicate their pain. Kholowa and colleagues found in their study that nurses had inadequate knowledge of pain assessment methods, inadequate knowledge using pain assessment scales for children [13]. A study was conducted in Nigeria [14] assessed the utilisation of pain assessment tools and identified factors influencing the utilization of pain assessment tools among nurses. The study was a quantitative study that employed a descriptive research design. The researchers [14] found the factors to be none availability of pain assessment tools, nursing workload and lack of familiarity with pain assessment tools. Heavy nursing workload leads to nurses leaving essential work such as pain assessment undone [2, 15, 16].

Globally, there is extensive literature on children's pain assessment. In Ghana, generally, there are limited published studies on pain in the paediatric population across the country. The available studies tend to focus on the adult population [17, 18, 19]. The few studies that have sampled from children focused on children 3- 5 years [20, 21]. The aspect of pain concerned in these studies is mostly on knowledge among health professionals [20, 22, 23] and barriers related to pain assessment among children [24].

Almost all the researches were conducted in the Ashanti Region and Greater Accra Region of Ghana [21, 23, 24] with a study in the Western Region of Ghana [25]. Thus, it is clear that within the Ghanaian setting, knowledge gaps exist in pain assessment concerning research among the paediatric population (0-3 years) and, most specifically, the Western Region part of the country. Moreover, since many studies have focused on knowledge among health professionals, there are gaps created in research focusing on pain assessment practices among health professionals, especially among the paediatric population (0- 3 years).

Methods

Study Design

Descriptive phenomenology was adopted since it is beneficial in uncovering a phenomenon that has been incompletely conceptualised by prior research [26].

Ethical Consideration

The study received ethical clearance from the Institutional Review Board of the University of Cape Coast (UCCIRB/CHAS/2018/25), after which the researchers sought approval from the Effia Nkwanta Regional Hospital. The study adhered to all ethical research principles for human subjects.

Setting and Sample

The study was conducted in Effia Nkwanta Regional Hospital, the biggest hospital in the Western Region of Ghana. The population consisted of registered nurses who had experience with nursing children after surgery. Nine participants were recruited using purposive sampling.

Data Collection

Face to face in-depth interview was used to collect the data with the help of an interview guide. The participants were interviewed at their own time of convenience in the English language. Data were audiotaped, and the

participants were informed of the audio recording. Field notes were also taken in addition to the audiotaping.

Data Management

The researchers ensured that the data collected was kept safe to protect the identity of the participants. Each participant was assigned a unique code. Audiotapes were saved in a folder on a computer and protected with a password which was only known by the researchers. Together with field notes, the transcribed data were kept safely in the primary researcher's office in a cabinet under lock. Data collected will be stored for five years, after which it will be destroyed.

Data Analysis

After each day's interview, the data recording was transcribed verbatim by the researchers in a Microsoft word document and analysed following Colaizzi's [27] methodological approach to the phenomenological inquiry, which consists of the following seven steps:

Step 1: Each transcript was read several times to obtain a sense of the full content. During this stage, any thoughts, feelings and ideas from the researcher due to her previous work with post-operative children were added to the bracketing diary.

Step 2: During this stage, significant statements and phrases that reflect challenges that the nurses reported having encountered in assessing post-operative pain were extracted from each transcript.

Step 3: After completing step two, there was framing the formulated meanings from each of the significant statements. The researchers arranged each significant statement in the left-hand column of a table in the word document with a column on the right for recording the formulated meaning. Table II gives an extract of formulated meanings from significant statements.

Step 4: In this stage of the analysis, Colaizzi

recommends sorting formulated meanings into categories (sub-cluster themes), clusters of themes, and themes. After describing all formulated meanings, there was organization and grouping of the formulated meanings into thematic categories. Each category title reflected the cluster of themes that emerged from the formulated meanings under each category. Each formulated meaning could belong to only one category.

Step 5: In this stage of the analysis, Colaizzi advocates writing summaries for each of the clustered themes. To continually link back to the importance of the participants' descriptions of their experiences, quotations from their narratives were used during the exhaustive description to expand upon the themes with 'real-world examples.

Step 6: This final stage involves formulating an exhaustive description of the investigated phenomenon as a statement of its fundamental structure. The results and discussion represent this type of exhaustive description and facilitate an in-depth understanding of the fundamental structure of the phenomenon being explored in this study.

Step 7: Colaizzi's suggested a final validating step that could be achieved by returning to each participant in an interview setting to ask their opinion of the findings. The researcher returned to the participants after getting advanced approval during the in-depth interview to validate the findings. All participants confirmed that the results were a true reflection of their experiences of post-operative pain assessment among children.

Study Limitations

The subjectivity of the data gathered poses limitations with phenomenology. This the researcher overcame subjectivity by returning to the participants for them to validate the findings to ensure that it was a true reflection of their experiences of post-operative pain assessment among children.

Results

The demographic data collected on the participants revealed that all the participants had nursed children with post-operative pain and were all females as there were no male nurses in the surgical ward where the participants were recruited. All the participants were assigned ID codes to ensure anonymity, for example, A003. Ages of the majority of the participants ranged between 30 to 40 years, with the average age being 32 years, 1 month. The highest educational level of six participants was a diploma, two had a first degree, and one had a master's degree. The majority had worked between five to sixteen years, with the average years being 9 years 2 months. Concerning experience with children after surgery, the number of years of experience ranged from 8 months to 7 years and an averagely 3 years 8 months.

Challenges Nurses Face in Assessing Postoperative Pain in Children

For the research question, "what challenges do registered nurses experience when assessing post-operative pain in children?" five clustered themes emerged, including inadequate resources, structural challenges, time constraints, inadequate knowledge, and children-imposed factors.

Inadequate Resources

Three clustered themes emerged concerning inadequate resources: unavailability of pain assessment scales, unavailability of blood pressure apparatus and unavailability of toys in the ward.

All the participants mentioned that there was no pain assessment tool for children in the ward to assess post-operative pain in the children.

"We don't have any pain scale on the ward that we use for children, especially those under three years.... I think as a hospital who is performing surgeries for children; I think at least we should have pain rating scales like the facial and the numerical." **A001**

One of the participants revealed that she had not seen any pain assessment tool since she came to the ward and cannot tell whether there are assessment tools for children.

"Ever since I came here, I have not seen any tool being used to assess pain. Personally, I know there are pain scales for adults, but when you ask me, I can't tell whether it is the ones we use for adults that we use for children, or there are different ones." **A004**

Unavailability of Paediatric Blood Pressure Apparatus

Blood pressure can be used to assess pain; however, the non-availability of paediatric blood pressure apparatus in the ward poses challenges in assessing pain. Most of the participants revealed that the ward did not have a paediatric blood pressure apparatus. The participants indicated that this affected their ability to determine pain blood pressure measurements among children.

"As for children, you can check their blood pressure to see if it is high so that you conclude there might be a pain, but unfortunately, we do not check the children their blood pressure. Our blood pressure cuff is normally for adults, so it becomes impossible to use it on children. For the children, we don't have the cuff, so we don't check their blood pressure for the children, and that is a major challenge affecting our ability to assess pain in children." **A003**

Unavailability of Toys in the Ward

The nurses mentioned that toys could be used as a measure of assessing pain in the child so that if the child refuses to play, it shows that there is something wrong with the child. One of the participants commented:

"Also, there are no toys here like there are in the children's ward so that if there are and the child plays with it, and after surgery, the child is not playing with it I that can help me to assess that there is pain so that one too is a challenge." **A003**

Structural Challenges

The participants disclosed that the structure of the work and workplace also affected paediatric post-operative pain assessment negatively. The heavy workload and the issue of combining children with adults in the same ward were the sub-cluster themes that emerged under this theme cluster.

All the participants revealed that the heavy workload posed a challenge in paediatric pain assessment. The heavy workload emanates from the low nurse-to-patient ratio. The participants also stated that in order to attend to other patients, they gave pain medications straight without assessing the pain.

“The workload, today, for instance, my in-charge, myself and one woman, we are the only ones on duty. So, if there is a child and the child is crying, me I will check the temperature, and if it is high, give the pain medication without bothering about the other things in order to be able to attend to the other patients.” A003

Another participant also added that:

“With the number of staff on duty, sometimes you will be three or two, and the patients on the ward will be plenty, maybe 19. At times too we have more than 19. So, if one or two or three are complaining of pain, immediately you get to the bedside, you will not even assess the pain. You just check if she is on any pain medication, you give it, then you leave to attend to other patients because the patients are plenty.” A004

Some of the participants indicated that combining children and adults in the same ward makes children’s post-operative pain assessment challenging.

“Also, one other issue is combining children and adults and caring for them at the same time. You realise that they are completely different people. For the children, because they are very fragile, you realise you have to give them much attention.” A002

Concerning combining children and adults in the same ward, another participant added that:

“The other issue is combining children with adults. I think the children should be kept at one side, and the adults too should also be kept at one side.” A009

Time Constraints

The nurses reported that assessing post-operative pain in children is time-consuming. The nurses were of the view that pain assessment would rather be left undone for other equally important tasks to be carried out. One of the participants shared that:

“The timing is a challenge because for example, this morning we are three nurses on duty, so if you have a child that needs to be assessed for pain and then I have to prepare somebody for theatre and I have to assess pain, I will not have time to do that but just give the pain medication.” A001

Another participant also stated that:

“And most of the time, the patients are more than twenty. So, you realise that you cannot get time to do the pain assessment. Pain assessment itself is time-consuming. So, as you work on one patient, the other patients will also be calling you, which will not get you much time to assess the child’s pain.” A008

Inadequate Knowledge

For one to effectively assess post-operative pain in children, one needs to be knowledgeable. The participants stated that they are general nurses, and this limits their knowledge on paediatric nursing hence pain assessment. One participant stated that:

“Also, we being general nurses and not paediatric nurses limits our knowledge in that area. For me, I think we need a whole workshop on how to assess pain so that the whole ward will have a uniform way of assessing pain.” A002

Another participant also mentioned that:

“I think one other big challenge is that we as nurses do not have much knowledge when it comes to assessing pain in children. For me like this, am a general nurse not specialized in

paediatric nursing, so my knowledge when it comes to paediatric nursing is very limited though I did paediatric nursing as a course in school.” A003

Child Imposed Factors

Children, preventing nurses from working on them were the sub-cluster themes that emerged under child-imposed factors.

Children Preventing Nurses from Working on them

Two of the participants revealed that children prevented them from working on them, which posed a challenge in assessing their post-operative pain. The nurses indicated that the children behave this way because they are afraid of injection.

“The {y{children} are afraid of nurses; they have a perception that for a nurse, it is injection so that perception alone will not make them allow you to get near them or even talk to you. And sometimes they will not tell you they are in pain because they know you will give them an injection.” A002

Discussion

The study aimed at exploring the challenges nurses experience in assessing post-operative pain among the children (0-3 years).

Challenges Nurses Face in Assessing Postoperative Pain in Children

The nurses reported their experiences with various challenges in assessing paediatric post-operative pain, including inadequate knowledge, inadequate resources, structural challenges, time factors, and children-imposed challenges. The study revealed that nurses did not have adequate knowledge of paediatric post-operative pain assessment, as reported in previous studies [13, 28]. Knowledge of post-operative pain assessment is constructive, especially in children, to render evidence-based nursing care. Inadequate resources in the clinical setting posed a challenge to pain assessment in children. They included unavailability of pain assessment tools,

unavailability of blood pressure apparatus and unavailability of toys on the ward. Effective pain management depends on the nurse’s ability to assess the presence and intensity of pain reliably. The Royal College of Nursing recommends in clinical nursing practice for pain assessment tools to assess pain [8]; however, nurses in the study did not use the pain assessment tools at all. The study findings are in agreement with a study conducted in Malawi by Kholowa and friends [13], another study in Nigeria by Christie and her colleagues, [14], and a recent similar study by Mediani and co [29] in Indonesia. They all found in their various studies that nurses did not use pain assessment tools in assessing pain. Using a pain assessment scale directs the nurse on the exact pain management technique. Not using any pain assessment tool has a way of affecting the management of pain negatively. Notably, the nurses in this study did not use pain assessment tools to assess post-operative pain in children, which resulted from the unavailability of pain assessment tools. This finding is in agreement with an earlier study conducted in Nigeria [14]. The use of a standardized and validated pain assessment tool is the cornerstone of practical paediatric pain assessment.

Another issue with inadequate resources in this study was the unavailability of toys. Children are active and would want to play. Refusal to play is an indication that there was something wrong with the child. Availability of toys in the ward will help to detect the child’s withdrawal since withdrawal from an activity is one of the behaviours used by children to exhibit pain [12]. The study identified structural challenges as being faced by nurses in assessing paediatric post-operative pain. They included workload and the issue of combining children and adults in the same ward.

Regarding the workload, all participants revealed that the nurse-to-patient ratio in the ward forced them to neglect to assess pain in children after surgery as reported in an earlier study [2]. By neglecting some nursing tasks, the quality of care given is compromised. The other

issue that came out was the issue of combining adults and children. The participating nurses were of the view that nursing children was quite different from nursing adults, so putting them together posed a challenge that affected pain assessment. Some suggested that even if they are put together in the same ward, a place should be demarcated solely for the children. Inadequate time for pain assessment was also identified as one of the challenges reported earlier by [15]. Assessing pain in children has been identified as time-consuming [16]. The last challenge this study identified was that children prevented nurses from working on them. This probably was due to the children's fear of injection.

Overall, participants expressed a positive experience of assessing post-operative pain among children though they had some specific challenges. From their accounts, it is clear that some form of support is needed to enhance their post-operative pain assessment among the paediatric population.

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Conclusion

Inadequate pain assessment among the children population has existed over the decades and is projected to continue if no intervention is given. The findings of the study established the existence of inadequate paediatric pain assessment in the Effia Nkwanta Regional Hospital. Nurses need to have adequate knowledge of paediatric pain assessment in order to improve post-operative pain management. The result of this study emphasises the importance of paediatric pain assessment tool in assessing post-operative pain.

Conflict of Interest

The authors declare no conflict of interest.

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