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# **Research Article**

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# Perception of Pain Management Among Nurses: A Study at Enchi Government Hospital

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#### **Abstract**

The subjective nature of pain makes it difficult to manage, especially when your healthcare personnel (mostly nurse) does not have requisite knowledge on pain management. Thus, the purpose of the study is to investigate the perception of pain management among nurses at Enchi Government Hospital.

Descriptive cross-sectional study design with quantitative approach and convenient sampling method was used in conducting the study. Standard closed ended questionnaire was used to elicit responses from registered nurses at the Enchi Government Hospital. The study revealed that out of the total 150 respondents, 75.1% (112) of the total respondents' responses depicted good perception on pain management, 76.7% (115) showed good knowledge on pain management and 51.4% (77) revealed good attitude towards pain management. In conclusion, majority of nurses at Enchi Government Hospital have good perception, good knowledge and good attitude towards pain management with others being at deficit. It is recommended that more studies are conducted on this subject concerning the topic of this study, other pertinent topics on pain management, in-service training conducted periodically and also implemented in curriculum for nursing education in Ghana.

**Keywords:** Pain, Pain Management, Nurses

#### Introduction

Pain is an uncomfortable, disturbing, subjective symptom that affects patients. This may affect the person's physical, psychological, and physiological wellbeing affecting their quality of life. Pain may be chronic or acute. Pain is one of the major reasons why people visit the health facilities and therefore needs to be assessed and managed well. In light of this, pain is now considered the fifth vital sign [1].

Many studies attribute most of the barriers associated with ineffective pain management to the nurses, perhaps because nurses spend 24 hours with patients. According to Coulling nurses make their own judgments about the patient's pain instead of relying on the patient's self-report of pain [2]. From a study conducted in Thailand by Manaporn, Chatchumni, Ampaporn, et al., nurses managed only intolerable pain and that pain management by their own previous experiences such as the clinical judgments of deciding to use pharmacological or non-pharmacological [3]. Pain manage-

ment relied on individual nurses' assumptions about the way care ought to be delivered, including when and what kind of medication and non-pharmacological treatments should be given to the patients in order to reduce their pain. Despite extensive research and updated guidelines on pain management, satisfying patient expectations for adequate and timely relief of pain remain a challenge in most health facilities. Nurses have limited knowledge in the area of assessment and management of pain [4]. It is difficult for nurses to objectively estimate pain, relative to checking pulse and respiratory rates, temperature and blood pressure.

Pain is one of the key reasons why patients visit the health facility and therefore its management should be an important aspect of nursing which should not be neglected. Perception, knowledge and attitude towards pain management by nurses are key to patients' wellbeing. According to a study in Dubai, it was found that nurses working in one of the government hospitals in Dubai, UAE, lacked the knowledge and attitude to provide optimal pain man-

agement. Inadequate knowledge was distributed among 89.5% and good knowledge only among 10.5%. These results revealed that the nurses had an inadequate knowledge and attitude when compared to other studies conducted worldwide [5]. Another study conducted in Saudi Arabia by Hamdan, Albaqawi1 and Shawhan identified that nurses displayed an extensive knowledge deficit and attitudinal problems, as far as pain management is concerned [6]. The knowledge deficiency was particularly a problem in certain aspects such as basic pharmacology in general, and the use of opioid analgesics in particular. In addition, there exists an apparent total lack of knowledge about the potential use of non-pharmacological approaches in pain management.

According to a study in Ghana by Aziato, nurses perceived pain as an individual phenomenon [7]. Aziato also indicated that nurses responded to patients' pain by administering analgesics and by using non pharmacologic measures. These turn out to affect how patient pain was managed. However, there are few studies in Ghana concerning pain management by nurses and as such, the research sought to investigate the perception of pain management among nurses in Ghana. Oboshie also revealed in a study conducted in Ghana that nurses had adequate knowledge on painful invasive procedures, but they were not aware of the range of available validated pain assessment tools, using observations and body language instead of assessing pain. Shamsu-Dean, Shokoh and Fatemeh uncovered that the level of knowledge of Ghanaian nurses on pain management were generally inadequate [8]. Thus, the researchers were poised at investigating the perception of pain management among nurses in Ghana.

#### **Research Questions**

- 1. What is the knowledge on pain management among registered nurses at Enchi Government Hospital?
- 2. What is the perception of pain management among registered nurses at Enchi Government Hospital?
- 3. What is the attitude on pain management among registered nurses at Enchi Government Hospital?

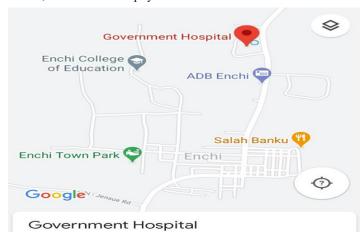
#### Research Methods Research Design

Based on the objectives of the study, a descriptive cross-sectional study design with quantitative approach was used to examine the perception of pain management among nurses at Enchi Government Hospital. A descriptive study aims to identify 'what is', by gathering and analyzing data, then describing it by using visual aids such as graphs and charts to aid the reader in understanding the data distribution [13]. It is relatively quick and easy to conduct. Cross sectional design is able to measure prevalence of all factors under investigation. However, the weakness of the design is the difficulty to determine whether the outcome followed exposure in time or exposure resulted from the outcome and also unable to measure incidence.

#### **Study Area**

The study was conducted at Enchi Government Hospital located at Enchi in Aowin Municipal in the Western North Region. Postal address 66, Enchi. It is the only municipal hospital in Aowin Municipality, also serving as a referral facility for the Health Centers

and CHPS compound within the municipal. Enchi Government Hospital has total of 101 bed capacity with 13 departments or unit rendering services at; Out Patient Department, Maternity Unit, Laboratory Department, Psychiatry Unit, Ear Nose and Throat Unit, Eye Unit, Accident and Emergency Unit, X-ray Department, Public Health Unit, Medical and Surgical Department, Pharmacy Department, Dental Unit and HIV/STIs Counseling and Testing Unit. Currently the facility has 150 registered nurses, 60 enrolled nurses, 3 doctors and 3 physician assistants.



**Figure 1:** Map of Enchi town indicating the location of the Enchi Government Hospital

#### **Population**

The study population used in this study were all registered nurses at Enchi Government Hospital which comprised of diploma and degree nurses (general and specialized nurses). Inclusion criteria has been explained by scholars as specific characteristics of the target population that the investigator is interested in and as such use as subjects from the study population. For the purpose of this study, all registered nurses including degree and diploma holders, male and female, general and specialized nurses with one year and above working experience at the Enchi Government Hospital were included in the sample size. Also, subjects were expected to consent to the study before their inclusion. The exclusion criteria which are also explained as certain features possessed by subjects of a study that could interfere with the success of the study or increase the unfavorable outcome. For the purpose of this study, the exclusion criteria were registered nurses who are not working at Enchi Government Hospital, other nurses aside registered nurses and those who refused to consent to the study. Also, NAC and HAP nurses were excluded because they work under the direct supervision of the registered nurses.

#### **Sampling Procedure**

Sampling is the process of selecting a few from bigger group to become the basis for predicting the outcome regarding the bigger group. This study was limited to all Registered Nurses including degree and diploma holders, male and female, general and specialized nurses with one year and above working experience at the Enchi Government Hospital. The Enchi Government Hospital has a total Registered Nurses population of 150 and by census; all the 150 Registered Nurses were used as sample size for the study.

census sampling technique was used to sample 150 Registered Nurses at the Enchi Government Hospital to participate in the study. Census sampling technique was used in this study to drawn out the sample size from the study population. Census sampling is a type of non-probability sampling which involves the sample being from that part of the population which is close at hand. That is, a sample population selected because it is readily available and convenient. First come, first serve. This sampling technique was applied to this study because the researcher was dealing with registered nurses as the population of study at Enchi Government Hospital and considering the study population to the sample size the researcher selected the respondents based on their availability.

#### **Data Collection Instrument**

A self-administered structured questionnaire was used in collecting data for this study. The questionnaire was developed based on the objectives and purpose of the study and was designed to capture data covering the following aspects: socio-demography, perception, knowledge and attitude of respondents in pain management. The instrument was divided into four sections. Section one described the socio-demographic data of the respondents, second the perception, third on their knowledge and last on their attitude.

#### **Data Collection Procedure**

A self-designed questionnaire was administered to registered nurses of various units and department by the respondents personally to collect data for the study. The respondents sought for informed consent from the participant that was conveniently selected from the various unit and department of Enchi Government Hospital per each shift. The purpose and significance of the study were explained to the respondents and those interested were made to give consent to participate in the study. The data from the respondents were expected to be completed within two weeks from onset of data collection.

#### **Ethical Consideration**

Participation in the study was voluntarily without any coercion to participate in the study. Consent was obtained before partaking and assurance of confidentiality given. respondents had the chance to opt out from the study anytime. respondents were explained to, details of the study, its objective to their understanding. Data were used for only academic purposes. Confidentiality and anonymity

of individuals was maintained by not using their identity. Also, misrepresentation of findings and plagiarism were considered with regards to ethical consideration. Data collected were protected with all diligence to ensure privacy. No manipulation or falsification of data was done.

#### Validity and Reliability of the Research Instrument

The degree of validity to which the research instrument measures the variables it intent to measure can be approximated to 85% (Grove, 2015). The validity was achieved by regularly presenting the work to the supervisor who assessed and made suggestions for improvement. To ensure validity, the questions were constructed with the specific research questions and literature review.

The term reliability as used in the research has been explained as the extent to which the results obtained from a particular study can be replicated when the measures and procedures are maintained. The pretest that was conducted assured the reliability of the instrument as expected that the instrument produces Cronbach's Alpha Reliability of 0.7 and above. This determined the clarity of items and consistency of the response from correspondents.

#### **Data Processing and Analysis**

Data collected from the respondents were analyzed using statistical software known as SPSS version 25 which gave a graphical representation of the views as indicated by the respondents. All the research questions were summarized using frequencies and percentages.

#### Results

#### **Demographic Background of Respondents**

From table 1, it could be identified that of the 150 respondents of nurses who were randomly sampled at the Enchi Government Hospital to answer the questionnaire. From these respondents, 82 (54.7%) were males. Age wise majority, 92 (61.3%) of the respondents were from the age of 26 to 30 years.it was revealed that majority of the respondents were religion, were Christianity (n = 120; 80.5%), Akans (n = 114; 77.0%), never married (n = 83; 55.3%), diploma nurses (n = 126; 84.6%), and had worked for less than years (n = 77; 51.3%).

**Table 1: Demographic features of respondents** 

Demographic feature	Frequency (Percentage) n (%)
Gender	
Male	82 (54.7%)
Female	68 (45.3%)
Age (Years)	
20-25	17 (11.3%)
26-30	92 (61.3%)
31-35	31 (20.7%)
36-40	9 (6.0%)
41-45	0 (0.0%)
46-50	1 (0.7%)
Above 50	0 (0.0%)
Religion	
Christianity	120 (80.5%)
Islamic	21 (14.1%)
Traditional	8 (5.4%)
Ethnic Group	
Akan	114 (77.0%)
Ewe	9 (6.1%)
Ga	5 (3.4%)
Others	20 (13.5%)
Marital Status	
Married	57 (38.0%)
Never married	83 (55.3%)
Cohabitant	5 (3.3%)
Separated	5 (3.3%)
Widow or widower	0 (0.0%)
Educational Qualification	
Diploma	126 (84.6%)
Degree	23 (15.4%)
Working years as a nurse	
Less than 2 years	77 (51.3%)
2-5 years	42 (28.0%)
6-10 years	28 (18.7%)
11-15 years	3 (2.0%)
Above 15 years	0 (0.0%)

From table 2, it could be identified that 138 (93.2%) of the respon-

dents have experienced pain before and 111 (76.6%) indicated that pain is subjective. Majority of the respondents revealed that pain is influenced by environmental and cultural background of patients (n = 117; 79.1%), patients exaggerate pain (n = 113; 76.4%) and pain can be managed without drugs (n = 131; 87.9%). Majority also revealed that pain cannot only be managed with drugs (n = 114; 77.0%), pain management is difficult (n = 82; 56.2%), pain cannot only be managed by skilled personnel (n = 103; 70.1%) and pain assessment play a key role in its proper management (n = 142; 97.9%). Again, majority of the respondents mentioned that improper management of pain can lead to chronic pain (n = 147; 96.6%). Responding to whether unmanaged pain can lead to death, 133 (91.7%) of the respondents said yes.

Table 2: Respondents' Perception of Pain Management

Perception of pain manage-	Frequency (Percentage)		
ment	Yes n (%)	No n (%)	
Have you experience pain before	138 (93.2%)	10 (0.6%)	
Pain is subjective	111 (76.6%)	34 (23.4%)	
Pain can be objective	111 (76.6%)	34 (23.4%)	
Pain is influenced by environmental and cultural background	117 (79.1%)	31 (1.7%)	
Patient exaggerate pain	113 (76.4%)	35 (23.6%)	
Pain can be managed without drugs	131 (87.9%)	17 (11.4%)	
Pain can only be managed with drugs	34 (23.0%)	114 (77.0%)	
Pain management is difficult	82 (56.2%)	64 (43.8%)	
Pain is managed only by skilled personnel	44 (29.9%)	103 (70.1%)	
Pain assessment play a key role in its proper management	142 (97.9%)	3 (2.1%)	
Improper management of pain can lead to chronic pain	142 (96.6%)	5 (3.4%)	
Unmanaged pain can lead to death	133 (91.7%)	12 (8.3%)	

From table 3, it could be identified that 111 (76.0%) of the respondent's said pain is the 5th vital sign, 145 (99.3%) said pain can be chronic or acute, and 143 (97.9%) indicated that pain needs to be assessed before management. Again, 110 (75.9%) of the respondents revealed that they are aware of tools used in pain assessment, 97 (66.9%) indicated that there are three steps in pain management, 129 (88.4%) said pains are managed differently and 125 (87.4%) indicated that periodic educations are done on pain management. Concerning whether pain management drugs are given according to level of pain, 143 (98.6%) said yes.

Table 3: Respondents' knowledge on pain management

Knowledge on pain manage-	Frequency (Percentage)		
ment	Yes n (%)	No n (%)	
Pain is the 5th vital sign	111 (76.0%)	35 (24.0%)	
Pain can be chronic or acute	145 (99.3%)	1 (0.7%)	
Pain needs to be assessed before management	143 (97.9%)	3 (2.1%)	
Are you aware of tools used in pain assessment	110 (75.9%)	35 (24.1%)	
There are three steps in pain management	97 (66.9%)	48 (33.1%)	
Pains are managed same	17 (11.6%)	129 (88.4%)	
Periodic educations are done on pain management	125 (87.4%)	18 (12.6%)	
Pain management drugs are given according to level of pain	143 (98.6%)	2 (1.4%)	

Table 4 presents data on respondents' attitude on pain management and it could be realized that the respondents who responded to the statement "I show positive reaction towards patient in pain", 103 (71.0%) agreed. respondents responded to the statement "I feel comfortable when I see patient in pain" and 126 (87.5%) of the respondents, disagreed. On the statement "I have strong empathy for patient in pain", 108 (74.5%) agreed. The statement "I prejudge patient in pain before managing" also elicited the following responses from the respondents; 54 (37.5%) disagreed. On the statement "Past experience help in proper management of pain", 104 (71.7%) agreed. Concerning the statement "Severe pain is classified as emergency", the responses revealed that 100 (69.0%) agreed. Responses to statement "Pain is managed as how it is presented" 101 (70.1%) agreed. Also, responses gathered concerning "I am fully competent to manage pain effectively alone" 54 (76.4%) agreed. With regards to "Pain management is a team work", 104 (72.7%) agreed. Responses to the statement "I give up when my knowledge for pain management is exhausted" 99 (68.8%) disagreed.

Table 4: Respondents' attitude towards pain management

Attitude towards pain management	Frequency (Percentage)				
	Disagree	Strongly Dis- agree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
I show positive reaction towards patient in pain	9 (6.2%)	2 (1.4%)	5 (3.4%)	103 (71.0%)	26 (18%)
I feel comfortable when I see patient in pain	126 (87.5%)	5 (3.5%)	4 (2.8%)	8 (5.6%)	1 (0.7%)
I have strong empathy for patient in pain	9 (6.2%)	2 (1.4%)	6 (4.1%)	108 (74.5%)	1 (0.7%)
I prejudge patient in pain before managing	54 (37.5%)	21 (14.6%)	16 (11.1%)	50 (34.7%)	3 (2.1%)
Past experience help in proper management of pain	8 (5.5%)	2 (1.4%)	8 (5.5%)	104 (71.7%)	23 (15.9%)
Severe pain is classified as emergency	4 (2.8%)	9 (6.2%)	10 (6.9%)	100 (69.0%)	22 (15.2%)
Pain is managed as how it is presented	7 (4.9%)	11 (7.6%)	4 (2.8%)	101 (70.1%)	21(14.6%)
I am fully competent to manage pain effectively alone	17 (11.8%)	24 (16.7%)	15 (10.4%)	54 (76.4%)	34 (23.6%)
Pain management is a team work	11 (7.7%)	5 (3.5%)	2 (1.4%)	104 (72.7%)	21 (14.7%)
I give up when my knowledge for pain management is exhausted	99 (68.8%)	19 (13.2%)	9 (6.3%)	11 (7.6%)	6 (4.2%)

# Discussion

#### **Demographic Features of Respondents**

As observed from table 1, one could believe that majority (54.7%) of nurses who work at the Enchi Government Hospital are males. A disclosure which indicates nursing profession is being patronized by more males contemporarily. In relation to pain management, it was realized during the literature review that woman are more sensitive to pain than men [10]. This could mean that most nurses at the Enchi Government Hospital, especially males, may not be able to manage pain well since they may perceive patients' pain to be minimal to warrant much attention. It could also be not-

ed from table 1 that majority (61.3%) of the nursing personnel at the Enchi Government Hospital is made up of nurses who are of the age of 26 to 30 years, followed by nurses of ages 31 to 35 years (20.7%). This indicates that Enchi Government Hospital has a youthful nursing population which is good because nurses mostly involve in active and swift movement as they discharge their duties as agreed by Smart [10].

In that regard, youthful nursing population is very crucial for a profession like nursing which has been demonstrated by Enchi Government Hospital per the data at hand. However, one could also say that the more aged a nurse, the more experienced the nurse may be. If this is true, then it could be very surprising for a big hospital like Enchi Government Hospital to have more youthful nurses than relatively aged nurses. From the youthful ages of nurses at Enchi Government Hospital, it was not surprised to realized from table 2 that majority (51.3%) of the nurses had less than 2 years of working experience. This could have significant impact on how pain is managed at the Enchi Government Hospital. This is due to the fact that the more experience a nurse is, the more knowledgeable and competent the nurse is able to manage pain of patients. There could, however, be a case where the aged did not associate them early with the nursing profession and as such may be relatively aged but less working experience. An assertion which could either be affirmed or otherwise depending on respondents' knowledge on pain management. The assumption that government hospitals have health personnel (especially nurses) with higher rank may not be true and that is if the data of this study can be generalized as such. From table 1, it could be read that majority (77.0%) of nurses at Enchi Government Hospital are affiliated to the Akan ethnic group, 3.4% were Ga ethnic group affiliate, 6.1% were Ewe ethnic group affiliate and 13.5% were affiliated to other ethnic groups not identified on the questionnaire. This provides evidence of Enchi Government Hospital having nursing personnel with different cultural background. And this means that they will have different perspectives and beliefs about pain which could affect their attitude towards pain management of their patients as said by Suza, Petpichetchian and Songwathana. However, Smart admonished that it is an ethical matter to understand and manage patients' pain appropriately when they are in pain and that nurses need to know all factors and cultural differences in responding to pain during assessment and management of patient's pain [11]. Regardless of language, religion, or situation, nurses should respect every individual and strive to alleviate pain and suffering in performing their duties.

It was realized from this study that majority (84.6%) of the nurses who partook in the study were diploma nurses whiles the rest were degree nurses. It was however not disclosed in the study, the actual rank of the nurses but in terms of educational qualification, the rank of degree nurse is higher than that of diploma nurse. Having more diploma nurses than degree nurses could also have significant effect on pain management. This is because, per academic content, the scope of degree nurses' curriculum is deeper than that of the diploma nurses and that confirms that if all things being according to status quo, degree nurses are to be more knowledgeable than diploma nurses. This assertion is fact due to the obvious contents enshrined in the curricular of degree nurses as compared to that of diploma nurses [12]. Therefore, managing pain at the Enchi Government Hospital could be difficult for nurses especially as the diploma nurses also have few years of working experience.

### Respondents' Perception on Pain Management

From table 3, it was realized that 93.2% of the respondents indicated yes for having experienced pain before and this could be key in their pain management of their patients. As realized from the literature review, indicated that it is common that people who have previous experience of multiple or prolonged pain will be less anxious and more tolerant of pain than those who have had little experience

of pain. This means that patients in pain will be at disadvantage and receive less attention from nurses at Enchi Government Hospital if the nurses' pain experiences have been multiple or prolonged. Ebrhimi-Nejad, Brhrampour, and Kohan are however of contrary view to the view of Lovering [13]. According to Ebrhimi-Nejad, Brhrampour, and Kohan, often, people with more experience of pain are more frightened because of subsequent painful events. It was also revealed from table 3 that 76.6% of the responses were yes for pain being both subjective and objective. This finding is very surprising and may depict that the respondents were not sure of whether pain is subjective or objective. The International Association of Pain defined pain as whatever the experiencing person says it is and whenever the experiencing person says it does and this makes pain be described as subjective. But are there not sign such as coiling in bed with arms firmly drawn to the abdomen, squeezing of face, crying and perhaps, screaming, not indication of pain? If that is true, then can pain also not be said as objective?

On the same table 3, it could be identified that 79.1% of the respondents said yes to pain being influenced by environmental and cultural background, 76.4% also indicated yes to the fact that patient can exaggerate pain. If it is true that patient can exaggerate pain, then how accurate can pain be assessed. This is because due to the subjective nature of pain, nurses are required to assess pain from the actual feeling of the patient. In this case, if patient over express the pain, the nurse will have a wrong assessment of the patient's pain. Conversely, per the culture, patient can under express pain and this will also cause nurse to have a wrong assessment of patient's pain and in either, the nurse is more likely to select wrong management approach of the patient's pain since wrong assessment has been done. This is one factor that makes it difficult for appropriate pain management not only by nurses but also by other medical practitioners. It was also identified from table 3 that 87.9% of the respondents said yes to the fact that pain can be managed without drugs.

Also, 77.0% of the respondents indicated no the statement "Pain can only be managed with drugs" and this is in conformation of them responding yes to pain can be managed without drugs. However, not all respondents who said pain can be managed without pain said pain cannot only be managed with drugs since there were differences (87.9% and 77.0%) in the data, though this difference was not statistically proven to be significant. Table 3 also revealed that 56.2% of the respondents admitted that pain management is difficult and this could be linked to the difficulty in ability to accurately assess pain. It was also interesting to notice that majority (70.1%) of respondents said pain is not managed only by skilled personnel. It is however not surprise since the data at hand indicates that Enchi Government Hospital has youthful nursing population with minimal working experience and if they should say otherwise, then it would mean they are not competent to function as nurses in the facility. But as Klopper, Andersson, Minkkinen, Ohlsson, and Sjostrom revealed, pain is properly managed if managed by experienced personnel [14]. This could be true, however controversial, due to the difficulty in accurate pain assessment. Another key revelation identified from table 3 was 97.9% of respondents saying that pain assessment plays a key role in its proper management.

This is very positive since it could engender nurses to broaden their knowledge concerning pain assessment which could translate into them properly managing their patients' pain.

Data on the cumulative responses on respondents' perception on pain management revealed (as presented by table 6) that majority (75.1%) of the responses indicates appropriate responses to all questions that sought to assess their perception on pain management. This gives an indication that few nurses at the Enchi Government Hospital provided inappropriate responses to questions that sought to assess their perception on pain management; however small they may be, it could be said that it is very significant for nurses who work directly with patients. The perception of a particular nurse caring for a patient in pain at a time is very important since it will affect the nurse's assessment, planning and management of the pain. Nonetheless, whereas a study conducted by Greenberger et al. identified a positive association between knowledge and attitude levels, as well as an increased willingness to provide care to patients who are in pain, it was also noted that those with more positive attitudes about pain management were also less likely to perceive themselves to give good pain care [15].

The findings from Greenberger et al. study was very surprising because usually, having good knowledge and attitude is more likely to be connected with appropriate perception but the contrary was realized from Greenberger et al. study [15]. Juxtaposing findings from Greenberger et al. study to the findings of this study, it could be realized that majority (76.7% and 75.1% for knowledge on pain management and perception on pain management respectively) of nurses provided appropriate responses to questions that sought the determine their knowledge on pain as well as their perception on pain. It must be indicated however that correlation between respondents' knowledge on pain management and respondents' perception on pain management was not determined in this study.

#### Respondents' Knowledge on Pain Management

From table 3, it could be realized that majority (76.0%) of the respondents indicated that pain is the 5th vital sign. Apart from body temperature, pulse, blood pressure and respiration which are known to be the four main vital signs, the World Health Organization has included pain to be the fifth vital signs [16]. This is perhaps due to the undeniable fact that pain has been part of almost all patients or clients who seek healthcare and how minimal pain can escalate into very severe pain if not managed well. It was therefore not surprised to have (per the data on table 4) 99.3% of the respondents indicating that pain can be chronic or acute. From the literature review, Oakes, identified two types of pain to be acute and chronic [17]. Oakes referred acute pain to be pain which usually occurs in a sudden onset caused by an injury or operation, or a disease, and will disappear after the injury is healed or the disease is resolved [17]. This pain lasts for short period of time, ranging from one second to less than six months. According to Oakes, the length of chronic pain depends on the healing process and usually persists for more than six months [17].

Chronic pain may be continuous or intermittent and may or may not be associated with chronic disease or injury. Having majority (99.3%) of the nurses knowing that pain can be acute or chronic will provide them an idea of how to assess and manage the pain. It follows congruently (per the data on table 4) that almost all (97.9%) the respondents indicated that pain needs to be assessed before management. This response, though slightly differ in number with responses on pain being acute or chronic, could be an indication since knowledge on types of pain play key role in assessing pain as affirmed by [16].

From the same table 4, it could be realized, surprisingly, that 75.9% of the respondents were aware of tools used in pain assessment. Though 75.9% forms majority of the respondents, it is however surprise because almost all respondents (99.3% and 97.9%) knew the types of pain and necessity to assess pain before managing the pain. The numerical difference between knowledge types of pain and necessity to assess pain before its management compared to knowledge on awareness of tools used in pain assessment is very wide, though not statistically proven. This indicates gap in the knowledge on pain by nurses at Enchi Government Hospital. However, 88.4% of the respondents indicated that pain is not managed same. This is also good since it gives an indication that nurses will manage pain depending on the type of pain their patients are experiencing. It was also identified from table 4 that 98.6% of the respondents responded as pain management drugs are given according to level of pain. This is also consistent with their knowledge of pain are not managed same as affirmed as they proposed the pain management ladder which gives idea of pain management drugs to be given to patients in pain depending the level of pain upon assessment [16]. Positively, it was again realized from table 4 that majority (87.4%) of respondents indicated that periodic educations are done on pain management at Enchi Government Hospital. This is positive because it will provide facilitators of the education to know the knowledge gaps and bridge those gaps appropriately when they get access to this study.

Data on the cumulative responses on respondents' knowledge on pain management revealed (as presented by table 6) that majority (76.7%) of the responses indicates appropriate responses to all questions that sought to assess their knowledge on pain management. The findings of study contradict with the findings of Matthews and Malcolm whose findings from their survey revealed that there was a severe deficit in knowledge relating to questions that sought to determine knowledge of their respondents on pain management [18]. On the other hand, the findings from Wilson's (2007) descriptive study were confirmed by this study was affirmed by the findings of this study [19]. However, the high rate of knowledge demonstrated by respondents in Wilson's study were by specialist nurses who worked in hospice/oncology department [19]. Also, a study by Al-Shaer, Hill, and Anderson that used 129 registered nurses as respondents, they revealed that the average knowledge score was 25.9 but they however concluded that the nurses demonstrated inadequate knowledge of pain management [20]. Perhaps the wide difference in findings between this study and that juxtaposed to are due to complete change in geographical area and nursing education system. From the literature review however, the findings of Aziato's study which was conducted in Ghana also contradicts this study's finding [21]. In Aziato's study, it was concluded that Ghanaian nurses have inadequate knowledge about pain management. Though findings of this study revealed

that majority (76.7%) of respondents demonstrated appropriate responses to questions that sought to assess their knowledge on pain management, the rest of the respondents whose responses were inappropriate are numerically significant and those nurses could exacerbate the pain of their patients that could in turn, ensue in complications. The gap in pain management knowledge demonstrated by nurses who work in the same health facility could result from curriculum gaps during training and inadequate clinical supervision during and after their school day and national service period as nurses.

#### Respondents' attitude towards pain management

It could be noted from table 4 that total of 1428 responses were provided on questions that sought to determine the attitude of respondents towards pain management. Out of the cumulated 1428, majority (51.4%) agreed to all questions that sought to assess respondents' attitude towards pain management, minority (5.5%) were neutral responses, 23.8% disagreed, 7.0% strongly disagreed and 11.9% strongly agreed. The findings of from this study have revealed that most of the respondents responded appropriately to all questions that sought to determine their attitude towards pain management but juxtaposing this finding to other studies, contradictory outcomes were identified. For instance, Machira, Kariuki, and Martindale revealed in their study (as known from the literature review), the prominence of attitude deficit of respondents [13]. It must be acknowledged that in the study of Machira, Kariuki, and Martindale, there was no significant difference between attitude of respondents towards pain management during the pre and post intervention. Another study which contradicts the findings of this study is the study done by Shamsu-Deen, et al. which also revealed bad attitude towards pain management among nurses [8]. However, nurses had good attitudes toward pain management, according to the findings from the study of Awube, et al. which they conducted in district hospitals in Ghana.

Even though it the data at hand indicates that more nurses who work at the Enchi Government Hospital provided appropriate responses to attitude towards pain management questions, an appreciable number of the nurses provided inappropriate responses to the attitude towards pain management questions. The few nurses who, per the data at hand, do not demonstrate appropriate attitude towards pain management should be of great worry because the numerical difference between appropriate responses to knowledge and perception questions on pain management (76.7% and 75.1% respectively) and appropriate responses to attitude towards pain management (51.4%) is wide. This means that some of the nurses know much about pain but would not portray appropriate attitude that could enhance pain management. In respect, this can be traced to their difference in culture and their frequent exposure to pain as discussed above.

#### **Conclusion**

The nurses at the Enchi Government Hospital have good perception and knowledge on pain management. The researchers concluded that nurses who work at the Enchi Government Hospital have good attitude towards pain management.

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#### **Declaration of Conflicting Interests**

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