academicJournals

Vol. 7(7), pp. 133-140, August 2015
DOI: 10.5897/IJNM2015.0174
Article Number: AF4B0F355019
ISSN 2141-2456

http://www.academicjournals.org/IJNM

International Journal of Nursing and Midwifery

Full Length Research Paper

Factors influencing perception of pain among clients attending a Nigeria teaching hospital

Joel Adeleke Afolayan[1]*, Deborah Iyabo Oyeleye[2], Falilat Omowumi Adebiyi[2], Abiola Omowumi Durojaiye[1] and Donald Bitrus[1]

[1]Department of Nursing Science, Faculty of Clinical Sciences, College of Health Sciences, University of Ilorin, Ilorin, Nigeria.
[2]School of Post Basic Nursing Studies, University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Received 20 May, 2015; Accepted 29 June, 2015

This study examined the factors influencing the perception of pain among clients attending the pain and palliative care unit of University of Ilorin Teaching Hospital, Ilorin. The population comprised of various clients with terminal illnesses such as cancer, human immunodeficiency virus (HIV), severe heart or kidney failure etc who experience pain, and attending the unit for treatment and follow-up care. Random sampling technique was used in selecting one hundred and five (105) subjects for the study. Questionnaire was the main instrument used for data collection, and was drawn in line with a Likert's rating scale. The result showed that level of awareness, age and educational level influenced pain perception. Chi-square was used to test hypotheses at 0.05 level of significance. The results revealed that cultural practices had significant influence on perception of pain. Based on the results, it was recommended that regular seminars, and continuing education programmes should be organized for training nurses on pain management. Palliative nursing care should be recognized as a speciality in nursing.

Key words: Hospice care, palliative nursing care, pain, pain perception, terminal illness.

INTRODUCTION

Everyone at one point or the other has experienced a degree of pain. In spite of its universality and external presence among mankind, the perception of pain remains an enigma. Pain is a complex experience that is not easily communicated; yet it is one of the most common reasons for seeking health care. It is the chief reason people take medication, and a leading cause of disability and hospitalization, pain is subjective and highly individualized and its interpretation and meaning involve psychological and cultural factors.

In other words, the person experiencing pain is the only authority on it. Besides, no two persons experience pain in the same way, and no two painful events create identical reports or feelings in person. And as the average life span increases, more people have chronic disease, in which pain is a common symptom. In addition, medical advances have resulted in diagnostic and therapeutic measures that are often uncomfortable.

*Corresponding author. E-mail: joel.afolayan@gmail.com or afolayan.ja@unilorin.edu.ng.

One therefore cannot but agree with White (2009), that pain is one of the most common problems faced by nurses, yet it is a source of frustration and is often one of the most misunderstood problems that confronts the nurse. The truth is that when patients are comfortable, encouraging necessary activities often become easier both for the patient and the nurse. This explains why much of nursing care revolves round relieving pain and ensuring comfort (Fuerst et al., 2010).

McCaffery (2008) defined pain as "what the person experiencing it says it is, and existing whenever he says it does". Therefore, to help a client gain relief, the nurse must believe that the pain exists. Anita and Jenny (2006) described pain as a common and growing problem in our societies. It is frequently associated with injuries, as well as illnesses and diseases that occur over a normal life span. They further postulated that pain is a subjective symptom that cannot be objectively measured in the way the heart rate can be measured or counted. Factors such as age, gender, underlying disabilities, social and cultural norms influences how one communicate pain.

Wikipedia (2012) defined pain as 'an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage. Pain perception does not correlate with the degree of tissue damage and each person's experience and expression of pain are different. Effective pain treatment facilitate recovery from injury or surgery, aids rapid recovery of function and may minimize chronic disability but unfortunately, there may be obstacles to the delivery of good pain relief such as poor assessment and concerns about the use of opium. Until recently, pain was always considered a symptom of an underlying acute injury or illness. Today, there is the understanding that changes in the nervous system resulting from chronic pain can become self sustaining. In these situations, pain becomes a disease in itself. For this reason, treating chronic pain can become the primary therapy as opposed to treating pain as a symptom of some other illness such as cancer (Famakinwa, 2002). Pain has also been defined, and occasionally still is, on a philosophical and religious basis as punishment for wrong doing. Aristotle defined pain as well as anyone in pain when he wrote that it is the 'antithesis of pleasure... the epitome of unpleasantness' (Fuerst et al., 2010).

In palliative care, pain is usually chronic and the obvious signs such as pallor, sweating, or changes in blood pressure may not be seen. Remember pain may be due to the client's disease, their treatment or related to a co-morbid illness. Palliative care is an approach that improves the quality life of patients, and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment, and treatment of pain and other problems, such as physical, psychological and spiritual (WHO, 2009).

Palliative care recognizes that people are much more than just body - our minds, our spirits and our emotions. All these are part of who we are, as are the families and communities to which we belong. Because suffering is experienced by persons, its existence, character and criteria for relief is defined by the patient rather than by the physician. Because persons do not exist in isolation, the relief of suffering requires attention to the care of patients and their families (Kolawole, 2012). He went further to say that suffering is caused by many factors that are rarely limited to the physical domain; palliative care addresses all domains of the human experience of illness that may be involved physically, socially and spiritually. Palliative care focuses on quality of life, rather than quantity. Putting life into their days not just days into their life (WHO, 2012). Kolawole (2012) enumerated the following as components of palliative care:

(1) Provides relief from pain and other distressing symptoms.
(2) Affirms life, and regards dying as a normal process.
(3) Integrates the psychological and spiritual aspects of patient care.
(4) Offers a support system to help patients live as actively as possible until death.
(5) Offer a support system to help the family cope during the patient's illness and in their own bereavement.

No single professional can adequately address the needs of palliative care; it is a multidisciplinary team approach. A core team usually includes a doctor, nurse social worker and a pharmacist. Some factors identified influencing pain perception includes age, culture, anxiety, meaning of pain, fatigue, previous experience, attention and distraction, family and support system and neurological status of the individuals.

Scientists soon discovered that differences in gender biology affect pain perception and response. Studies indicated that women believed their emotions of fear and anxiety affect their perception of pain adversely, whereas men focused more on the physical aspects. Women have a lower pain threshold and pain tolerance, and seek medical help more readily than men; moreover, women's responses to opoids and other analgesics also vary from men's responses (Cherkin, 2010).

The Australian Pain Society (2005) further reported that most respondents thought the typical person living with chronic pain was an adult at or above 65 years of age. A majority agreed that some people tend to exaggerate their pain to gain attention, avoid work, or to obtain pain killers. More of the youngest respondents answered "strongly agree" to this statement. Approximately, 40% of all patients with cancer are over 65 years of age. Adequate pain control is lacking for this population. Approximately, 20% of the elderly population takes pain relieving medications several times a week.

However, 80% of the elderly living in nursing homes

who experienced pain is undertreated. Such beliefs as that children feel less pain as intensely as younger adults are misconceptions and now outdated (Stanley and Pollard, 2013).

Gate control theory was introduced by Ronald Melzack and Patrick Wall in 1965. The original theory hypothesized that a gating mechanism located in the spinal cord could be closed by the normal stimulation of fast-conducting tactile nerve fibres to prevent pain sensations from reaching the brain centres or be opened to allow certain high-volume intense pain signals to pass through (Graceful Agony, 2010). The gate could be closed again if stimulation of the large touch fibres was renewed. According to the latest version, the gate control system is also influenced by natural analgesic inhibitory mechanisms involving the midbrain, medulla and spinal cord. Attention, memory, anticipation, emotions and release of chemicals by the nerve fibres in the dorsal horn of the spinal cord can serve as facilitating or inhibiting factors in the dorsal horn (Grendell, 2013) (Figure 1).

Palliation is the relief of suffering as a goal of medical care which was subjugated or lost in many settings in the quest to achieve cure and/or prolongation of life at all cost. Unfortunately, all people are influenced by prejudices based on their culture, education and experience. As such, the extent to which nurses allow themselves to be influenced by prejudices may seriously limit their ability to offer effective pain relief. Pain is one of the most viewing and pervasive of all human problems. it is an abstract concept that is both frightening and fascinating. Pain has been experienced by all, yet each is alone in the experience. Pain hurts in many ways.

Various attempts are therefore being sought for an effective means of pain relief. The lay public sees comfort and relief of pain as one of the major functions of nurses. So both client and nurse are frustrated and disillusioned when efforts at pain relief do not succeed. Nurses need to recognize the importance of the uniqueness of each individual and their perception of pain cannot be over emphasized in this changing time of our existence. The field of perception of pain research which had stagnated for almost a century has to be ‘reborn’.

It is the realization of these facts that motivated the researchers to investigate factors influencing pain perception among clients attending pain and palliative care unit of University of Ilorin Teaching Hospital (UITH), Ilorin, Kwara State, Nigeria.

MATERIALS AND METHODS

This study adopted a descriptive survey method which was aimed at investigating factors influencing the perception of pain among clients attending palliative care unit in University of Ilorin Teaching Hospital, Ilorin, Kwara State, Nigeria.

The study population comprised of all registered patients attending the follow-up clinic at the pain and palliative care unit of the hospital. The participants cut across three sections; those attending the clinic, those on admission and those on home visit. Those who attend the clinic formed the majority of the respondents irrespective of gender or age range of 25 and 40 years, religion or ethnic group.

The sample size comprised of 105 participants selected using simple random sampling techniques amidst clients who were for treatment and care, and outpatients with a terminal illness who experienced pain such as HIV, cardiovascular disease, arthritis, cancer etc. The clinic register was examined before the respondents were randomly selected by balloting. The research instrument was a self-developed structured questionnaire generated from the literature review. The instrument for data collection comprised of both open and close ended questions, and four point Likert’s rating scale was also used to elicit responses from the participants. The instrument was given to senior researchers for content, and face validity and reliability coefficient test was done with a result of .68.

Permission was solicited from the Pain and Palliative Care Unit after the ethical committee of the hospital had given approval for the study, and the unit consented to carrying out the study. Clients’ informed consent was obtained after a thorough explanation on the purpose of the study. Data obtained were put into frequency distribution according to the research questions, and descriptive and pictorial analyses were used. Data were presented in series of tables and figures such as bar and pie charts. The inferential statistics were used to determine the significant influence based on the identified variables of gender and cultural practices as stated in the hypotheses. The alpha level was at 0.05 level of significance.

RESULTS

Table 1 showed that 56 (53.3%) were aged 40 years and 11(10.5%) were aged between 30 to 34years. The sex distribution of the respondents showed that 56 (53.3%) were males and 49 (46.7%) were females, while Christians were 44 (42%) and Muslims were 61 (58%). 73 (69.5%) of the respondents were married, 27 (25.7%) were widowed while 5 (4.76%) were single. 57 (54.29%) of the respondents were Yorubas, 23 (22%) were lgbo, 15 (14.3%) of the respondents were from other tribes such as lgala, Fulani, Edo and Nupe. 76 (72.3%) of the respondents had secondary school certificates, while diploma/graduates were 15 (14.2%), post graduate 7 (6.6%), illiterates 5 (4.7%), and less than or up to primary six were 2(1 .9%). Table 1 also showed that 49 (46.6%) of the respondents were civil servants, self employed was 39 (37.1%), unemployed 11(10.4%) and schooling/apprenticeship 4 (3.8%), with only 2 (1.9%) being politicians.

Research question 1

Will level of awareness influence pain perception among clients attending pain and palliative care unit of UITH, Ilorin?

From Table 2 and Figure 2, it was revealed that 60 (57.1%, 205.7°) respondents strongly agreed that level of awareness influenced pain perception, 24 (22.9%, 82.3°) respondents agreed to it, 8 (7.6%, 27.4°) strongly disagreed, while 13 (12.4%, 44.6°) disagreed, respectively.

Table 1. Demographic characteristics of participants.

Variable	Frequency (f)	Percentage (%)
Age (Years)		
25 – 29	14	13.3
30 – 34	11	10.5
35 – 39	24	22.8
40 and above	56	53.3
Total	105	100
Gender		
Male	56	53.3
Female	49	46.7
Total	105	100
Marital status		
Single	5	4.76
Married	73	69.5
Widowed	27	25.7
Total	105	100
Ethnic group		
Yoruba	57	54.2
Hausa	15	14.3
Igbo	23	22
Others	10	9.5
Total	105	100
Religion		
Islam	61	58
Christianity	44	42
Total	105	100
Highest educational level		
Non formal	-	-
Less than or up to primary 6	2	1.9
Secondary certificate	76	72.3
Diploma/Graduate	15	14.2
Post graduate degree	7	6.6
Total	105	100
Occupation		
Schooling/Apprenticeship	4	3.8
Unemployed	11	10.4
Self employed	39	37.1
Civil servant	49	46.6
politician	2	1.9
Total	105	100

Table 2. Frequency distribution of respondents on influence of awareness on perception of pain.

Response	Frequency (f)	Percentage (%)	Degrees
Strongly agree	60	57.1	205.7
Agree	24	22.9	82.3
Strongly disagree	8	7.6	27.4
Disagree	13	12.4	44.6
Total	105	100	360

Table 3. Frequency distribution of respondents on whether age influences perception of pain.

Response	Frequency (f)	Percentage (%)
Strongly agree	56	53.3
Agree	25	23.8
Strongly disagree	11	10.5
Disagree	13	12.4
Total	105	100

Research question 2

Will age influence the perception of pain among clients attending pain and palliative care unit of UITH, Ilorin?

Table 3 and Figure 3, indicated that 56 (53.3%) respondents strongly agreed that age of respondents influenced the perception of pain, 25 (23.1%) respondents agreed, 11 (10.5%) respondents strongly disagreed while 13 (12.4%) respondents disagreed.

Research Question 3

Will educational level influence the perception of pain among clients attending pain and palliative care unit of UITH, Ilorin?

From Table 4 and Figure 4, 30 (28.6%) respondents strongly agreed that level of education influenced pain perception, 55 (52.4%) respondents agreed, 6 (7.6%) strongly disagreed while 12 (11.4%) respondents disagreed respectively. A careful examination of Table 5, showed that tabular value was 12.592 at the alpha level of 0.05 with a degree of freedom of 3 lesser than the calculated value which is 13.978. Therefore, the Ho is accepted as the Male having a mean score of 2.6 while female had 1.6.

DISCUSSION

The study revealed that awareness level influenced the perception of pain, and this finding is congruent with the study of Johnson and Rice (2007) who stated that while constant attention to pain may serve to intensify it, knowledge of what to expect appears to reduce subjective

Table 4. Frequency distribution of respondents on educational level's influence on pain perception.

Response	Frequency (f)	Percentage
Strongly agree	30	286
Agree	55	52.4
Strongly disagree	8	7.6
Disagree	12	11.4
Total	105	100

Table 5. Difference in gender of participants and pain perception.

Gender	Response					
	SA	A	SD	D	Total	Mean score
Male	30	8	1	2	41	2.6
Female	38	20	2	4	64	1.6
Total	68	28	3	6	105	-

Ho1: There is no significant difference in the gender of the participants and pain perception; X^2 Cal = 13.978, X^2 tab at alpha level of 0.05 at df of 6 = 12.592.

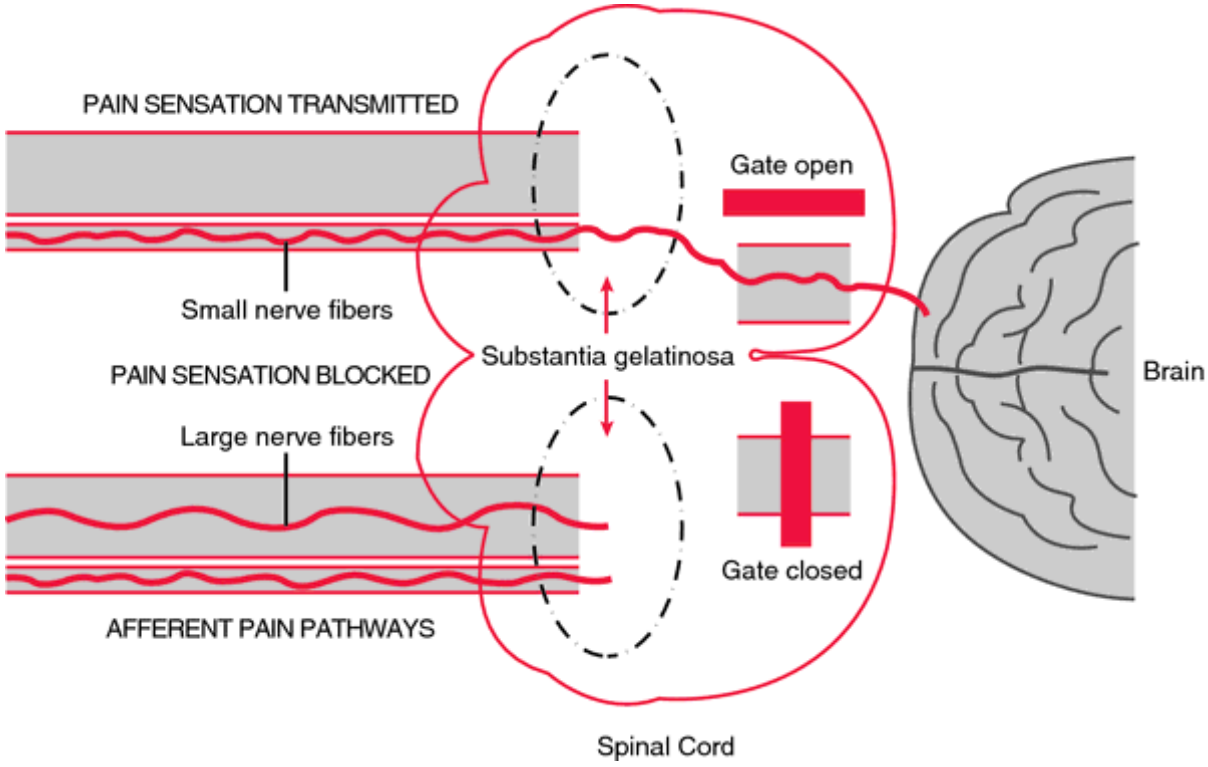

Figure 1. The pain pathways (Gate Control Theory of Pain, 2010).

distress. Also, Mitchell and Loustau (2008) asserted that since the major source of anxiety is fear of the unknown, communication of knowledge that is intended to decrease the unknown can help diminish anxiety and focus it upon specific concerns.

The finding further revealed that age influences perception of pain. This finding is consistent with Walker et al. (2003) and Yates et al. (2005). It has been suggested that age diminishes the experience of pain. However, this is in contrast to some views that many

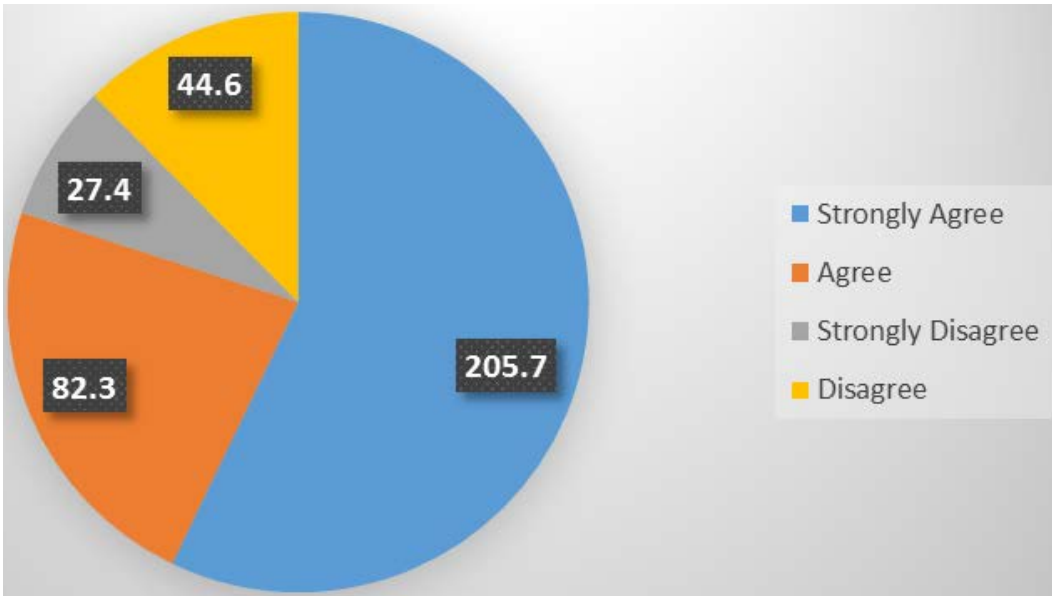

Figure 2. Pie chart showing frequency distribution of respondents on influence of awareness level on the perception of pain.

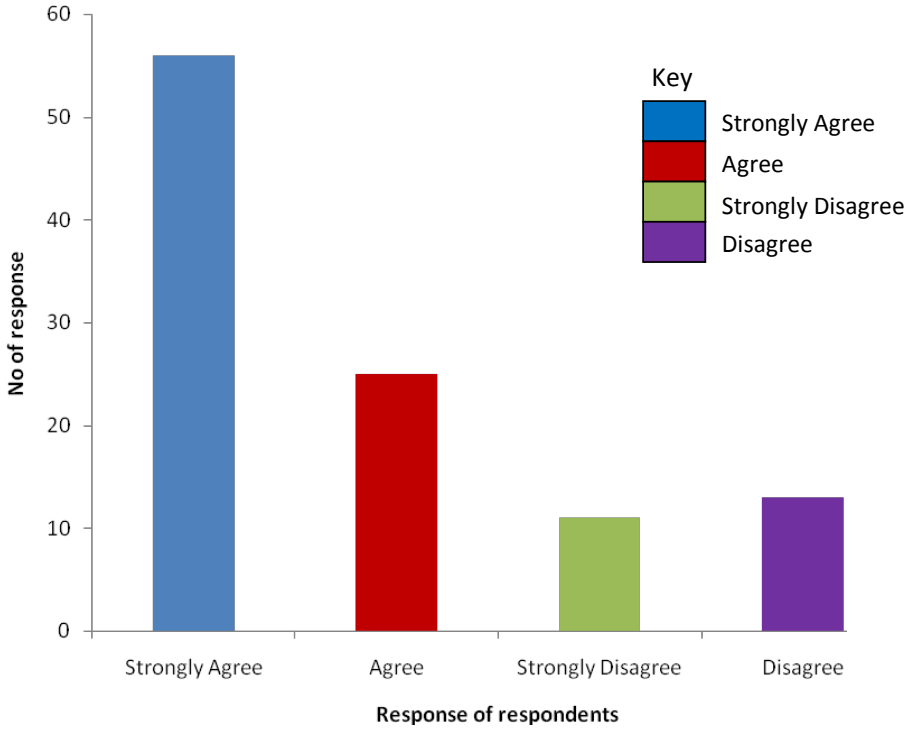

Figure 3. Bar chart showing frequency distribution of respondents on whether age influence the perception of pain.

elderly people live in the community with pain which severely reduces their quality of life, and they do not seek help because they feel their pain is to be expected and tolerated. Sorensen and Luckmann (2011) also agreed with the assertion by saying that sensitivity to pain varies with age. Since learned emotional attitudes alter greatly the perception of pain, infants are less sensitive to pain than adults. Repeated studies demonstrated that in any

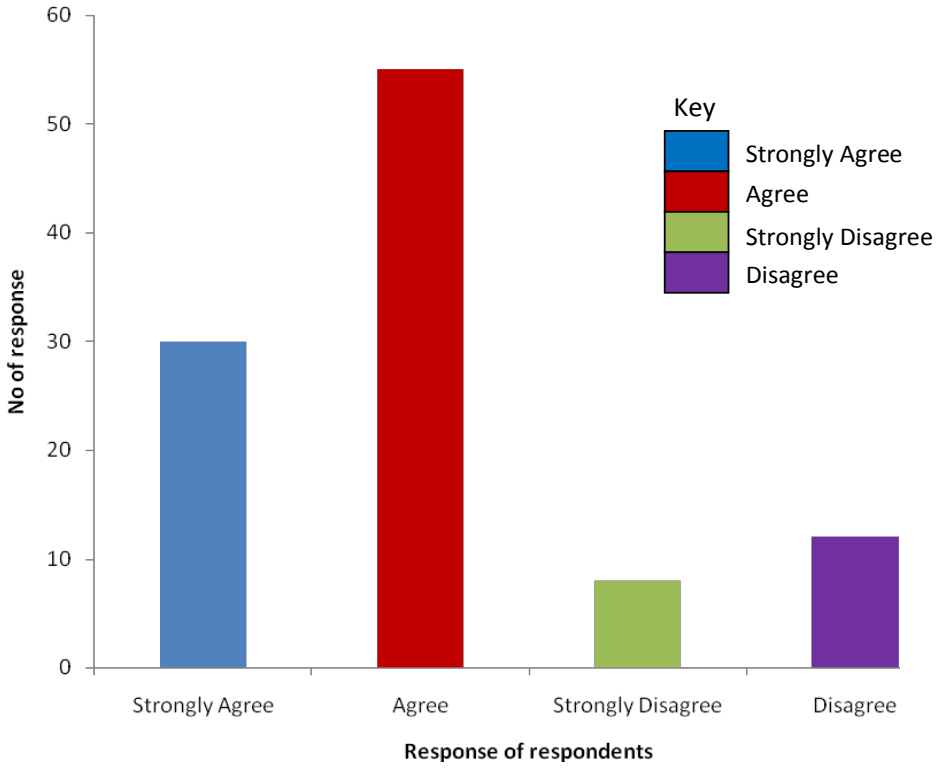

Figure 4. Bar chart showing frequency distribution of respondents on level of education's influence on pain perception.

individual pain sensitivity is learned as an infant, it increases as the person grows to adulthood and then gradually diminishes in advancing age. Infact, the intensity of pain in the elderly may be overlooked or its significance discovered later than is desired.

The study also revealed that level of education influences pain perception. This finding agreed with Sorensen and Luckmann (2011) that established level of education will aid communication between the health team and the patient. Communication about pain is often a problem especially while dealing with patients with low literacy level, the nurse encounters double difficulty that of first defining an experience and then of communicating it. The patient must find a word to describe the pain, and the nurse must then understand it. The finding also supports Morton et al. (2005) that many people with a variety of needs may never enter into the health and social care services. Their needs may be met through an "informal education" network of friends, neighbours or relatives. This network often provides the bulk of their care in the community.

Gender of the participants was found not significant to the perception of pain. This assertion supports White (2009) that it is doubtful whether gender by itself is a factor in pain perception and expression. Results of studies comparing pain tolerance in males and females to say the least have been at best confusing. As such, the only conclusion that could be safely made is that there are certain cultural factors influencing the effect of gender on pain perception.

Dawitz and Dawitz (2011) further asserted that the evidence surrounding the effect of gender on pain perception and its expression is inconclusive. It has been suggested that men are able to tolerate more pain than women. However, this may be due to the different ways in which men and women are socialized. For example, in some societies, men are expected to be 'brave' or unemotional. These expectations may explain why nurses in their study tend to see female patients as suffering more physical pain and psychological distress than male patients.

The role of sex in an individual's response to pain has received considerable attention in the literature but the findings have been equivocal. In some past studies, it seems that women report more pain or required more analgesic medication than men (Lowenstein et al., 2009; Schopflocher et al., 2011) whereas, others have found the reverse pattern. These findings, contrast other studies where no significant difference between males and females was established (Streltzer and Wade, 2011).

Conclusion

Pain is an unpleasant sensory and emotional experience

associated with actual or potential tissue damage or described in terms of such damage. So pain does not only have impact on the person's physical being but also psychological being. The reaction to pain is a complex physio-psychologic process involving the cognitive functions (example, awareness and reasoning). Reactions to pain are highly individualistic, and may vary for a given individual from one time to another in his life. The influence of age, gender, educational background, previous pain experience, meaning of pain and cultural practices were investigated to have influence on pain perception.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

(1) Regular seminar and continuing education programmes on pain management should be organized regularly for nurses and as a refresher course.
(2) The main aim of palliative care which is to improve quality of life so that the remaining days or months or years can be peaceful and as such should be embraced by all, and nurses should trained in palliative care and as a specialty course (post basic course)
(3) Nurses should be encouraged to incorporate the use of a pain tool in assessing pain of their patients for better assessment/evaluation.
(4) There is the need to promote greater awareness on the benefits of palliative medicine in the population at large, and among cadres of professionals and traditional health care providers.
(5) Holistic approach to pain management should be encouraged.
(6) There should be the establishment of a National Committee or a National Association on palliative care to coordinate the activities of satellite groups nationwide, to establish the standards and ethics of terminal care and to foster relations with similar organization worldwide.
(7) Nursing and Midwifery Council of Nigeria to include pain and palliative care in the mandatory programme for all nurses before the renewal of license and into all nursing curricula.

Conflicts of interest

The authors declare that they have no conflicts of interest.

REFERENCES

Anita R, Jenny O (2006). Clinical Medicine (6th ed), London: Bath Press Limited.

Cherkin DC (2010). Effect of massage on chronic low back pain. Seattle: National Institute of Health (NIH).

Famakinwa TT (2002). Synopsis of Medical Surgical Nursing. (Revised ed.), Benin: Bayosoye Printing Press.

Fuerst EU, Wolff LU, Weitzel MH (2010). Fundamentals of Nursing (5th ed.), Toronto: J.B. Lippincott Company.

Graceful Agony (2010). Gate Control Theory of Pain. Available at: www.https://gracefulagony.wordpress.com/2010/03/04/gate=control-theory-of-pain/

Grendell RN (2013). Pain management. Cancer Nursing 17(3):207-214.

Wikipedia (2013). International Association for the study of pain 10/1/2013. Available at: https://en.wikipedia.org/wiki/International Association_for_the_study_of_pain

Johnson RW, Rice ASC (2007). Pain following herpes Zoster: The influence of changing population characteristics and medical developments. Pain 128:3-5.

Kolawole IK (2012). Introduction to the Basic Pain and Palliative Care Concepts. A Paper Presentation on Pain and Palliative Health Week. (Unpublished).

Lowenstein O, Leyendecker P, Hopp M, Schutter V, Rogers PD, Uhl R, Bond S, Kremers W, Nichols T, Krain B, Reimer K (2009). Combined prolonged-release oxycodone and naloxone improves bowel function in patients receiving opiods for moderate-to-severe non-malignant chronic pain: A randomised controlled trial. Expert Opin. Pharmacother. 10(4):531-543.

McCaffery M (2008). Nursing Practice Theories related to Cognition, Bodily Pain and Man Environment Interactions. Los Angeles: UCLA.

Mitchell PH, Loustau A (2008). Concepts Basic to Nursing. 3rd ed. New York: McGraw-Hill.

Morton CM, Reid J, Holton LL, Nolan AM (2005). Application of a scaling model to establish and validate an interval level pain scale for assessment of acute pain in dogs. Am. J. Vet. Res. 66(12):2154-2166.

Schopflocher D, Taenzer P, Jovey R (2011). The prevalence of chronic pain in Canada. Pain Res. Manag. 16(6):445-450.

Sorensen KC, Luckmann J (2011). Basic Nursing: A Psychopathologic Approach. 3rd ed. Philadelphia Pa: Saunders

Stanley M, Pollard D (2013). Relationship between knowledge, attitudes and self-efficacy of Nurses in the management of paediatric pain. Pediatr. Nurs. 39(4):165-171.

The Australian Pain Society (2005). Pain in Residential Aged Care Facilities: Management Strategies. Available at: http://www.apsoc.org.au/PDF/Publications/Pain_in_Residential_Aged_Care_Facilities_Management_Strategies.pdf

Walker BF, Muller R, Grant WD (2003). Low back pain in Australian adults: The economic burden. Asia Pac. J. Public Health 15(2):79-87.

White I (2009). Controlling Pain. Imprint of Times Mirror International.

WHO (2012). Palliative Care Nursing: A Guide to practice (2nd ed) Melbourme: EdAusmed Publications.

WHO (2009). Pain Management. National Directory of Palliative Care Services. Available at: http://www.paIlcare.org.au

Yates SL, Morley S, Eccleston C, de C Williams AC (2005). A scale for rating the quality of psychological trials for pain. Pain 117(3):314-325.