



Knowledge, Acceptance and Perceived Effects of Pain Assessment Tools in Patient Management among Nurses in Selected Hospitals in Ekiti State

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Abstract

In the discharge of nursing responsibilities, nurses are frequently saddled with assessment and management of acute and chronic types of pain of their patients as such, their abilities to efficiently assess patients' pain is an important criterion in evaluating the effectiveness of their interventions and the patients' outcome. This study assessed the knowledge, acceptance and perceived effects of pain assessment tools in patient management among nurses in Ekiti State, Nigeria. The study employed a descriptive research design and Stratified, Purposive, Proportionate and accidental sampling techniques were used to select 90 nurses from the three tiers of the healthcare delivery system in the state. Data were obtained using a self-developed and pretested questionnaire, and were sorted and analysed using SPSS version 20. The results revealed that, nurses had inadequate knowledge of Pain Assessment Tools as majority (73%) were familiar with just two types of the tools while none was able to identify other types; most of the nurses (92%) were willing to accept the tools if they are made available; nurses perceived quick recovery (96%) stress reduction (89%) and minimal side effects from drugs (88%) as the leading effects of the tools. It was concluded that, though the knowledge was inadequate, nurses were favourably disposed to the use of the tools. Policy makers and management should therefore organize seminar and workshop to enhance the nurses' knowledge on pain assessment tools and also make the tools readily available in the hospitals.

Keywords: *Acceptance, Ekiti-state, Knowledge, Pain Assessment, Tools.*

Introduction

Pain is a common symptom experienced by most patients while adequate pain control is the right of every patient and beneficial to the patients (Kizza, 2012). Unattended pain can lead to a feeling of hopelessness in patients, affect their response to treatment and disrupt their quality of life (Al-Atiyyat, 2008) and poorly managed pain induces physiological and psychological harmful effects on the patients (Abdalrahim, 2009). This explains

why scholars like Herr, Coyne, Key *et al.* (2006), regarded provision of pain management and comfort to all patients by health care professionals as an ethical issue. Pain assessment is an important step toward building a foundation for better and effective management of pain, ensuring patients' comfort and ultimately improving the quality of nursing care. Pain should be measured using an assessment tool that identifies the

quantity and/or quality of one or more of the dimensions of the patients' experience of pain.

Management of pain begins with an accurate and thorough assessment of the patients, based on the nurses' knowledge (Wysong, 2012). There are wide varieties of pain assessment tools. These include a one-dimensional tool measuring the quantity of one dimension of the pain experience, for example, intensity. They are accurate, simple, quick and easy to use for acute pain assessment. The multidimensional types provide information about the qualitative and quantitative aspects of pain, it requires patients to have good verbal skills and sustained concentration, as they take longer to complete than one-dimensional tools. Basically, there are several types of Pain Assessment Tools used for acute pain management. These include but not limited to Numerical rating scale, Verbal rating scales, Graphic rating scales, Visual analogue scale and Picture graphic scales.

Pain assessment and management is an important outcome when evaluating the effectiveness of nursing care as nurses form an integral part in effective inter-professional management of pain and are very much involved in acute and chronic pain assessment. To achieve quality pain assessment, nurses need to have an understanding of the underlying condition and adequate knowledge of the principles of assessment (Ashley, 2009 as cited in Kizza, 2012). A study conducted among nurses in Hong Kong revealed that nurses lack the knowledge to manage pain optimally (Lui, So & Fong, 2008). This poor knowledge has been previously reported by other studies (Wilson, 2007; Bernadi *et al.*, 2007). Poor knowledge unsurprisingly will affect pain management as reported in another study by Wood (2010) who reported that pain is poorly managed with up to 67% of patients experiencing unnecessary moderate to severe pain.

However, the difficulties in managing patients with pain are compounded not only by

deficient knowledge in pain assessment but also by attitudes and beliefs of nurses who spend more time with the patients and are professionally responsible for pain assessment and administration of analgesia (Reed-Ash, 2010 as cited in Famakinwa, *et al.* 2014). According to a Kenyan study, almost all the nurses (96%) in the study confirmed that they routinely managed pain but 57% of the participant indicated that they had inadequate knowledge regarding the tools that may be employed for pain assessment and measurement. (Kituyi, Imbaya, Wambani *et.al.*, 2011).

For effective pain management, nurses need to be knowledgeable, possess skills and the right attitude to be able to select appropriate assessment tools, strategies, and interventions. The present study, therefore, aimed to evaluate the knowledge, acceptance and perceived benefits of pain assessment tools among nurses in selected hospitals in Ekiti State, Nigeria. The specific objectives are to assess the knowledge of the nurses on Pain Assessment Tools, to determine their acceptance of the tools and to identify the perceived effects of pain assessment in pain management.

Methods and Materials

Study Design

A descriptive cross-sectional research design was utilized in this study to evaluate the knowledge and acceptance of pain assessment tools among nurses in selected hospitals in Ekiti State, Nigeria.

Sample and Sampling Technique

The study utilised multiple sampling techniques to select the respondents. This was achieved by stratifying the health facilities into tertiary, secondary and primary health facilities. Three hospitals were then selected, one from each stratum. These are the State University Teaching Hospital, State Specialist Hospital Ikere-Ekiti and Comprehensive Health Centre Okeyinmi. Three units/wards were purposively selected from each of the

hospitals, male medical ward, female surgical ward and Paediatrics ward where proportionate sampling technique was then used to pick respondents in the ratio 11:6:1 respectively based on the population of nurses working in each healthcare facility. Accidental sampling techniques was utilized in the last stage to pick respondents using only the nurses that were met on duty.

Data Collection

The questionnaires for data collection were self-administered to the respondents on a one-on-one basis and the same were collected immediately to prevent misplacement and loss. The respondents completed a pre-tested structured, self-developed questionnaire to provide information on their knowledge, acceptance of Pain Assessment Tools and their perceived effect on patient management. The questionnaire consists of four sections; addressing the demographical data and each of the objectives of the study. The instrument's face and content validity were ascertained.

Ethical Consideration

The management of the selected hospitals were duly informed and the Ethics and

Research Committee of the Ekiti State University Teaching Hospital approved the study protocol. Informed consent of the respondents was obtained before administering the questionnaire after explaining the nature and reason for the study to them.

Analysis

The data collected was analysed using Statistical Package for Social Sciences (SPSS) V 20. The result was presented using descriptive statistical methods such as frequency tables and bar chart

Results

Demographic variables of the respondents revealed slightly above half of the respondents (51%) were within 31-40 years and the majority (92%) were female, 96% were Christians, 70% of the respondents were Registered Nurse/Registered Midwife only. The ranking of the professionals showed that 21% were Nursing Officers II while 46% were Nursing Officer I. Additionally, it was found that 40% had 1-5 years working experience, 24% had 6-10 years, 14% had 11-15 years while the remaining 7% had above 15 years of working experience.

Table 1: Demographic Data of the Respondents (n=90)

	Variables	Frequency	(%)
Age:	20-30	24	27
	31-40	46	51
	41-50	18	20
	51-60	2	2
Sex:	Male	7	8
	Female	83	92
Religion:	Christian	86	96
	Muslim	4	4
	Others	0	0
Qualifications:	RN/RM	63	70
	BSc/BNSc	21	23
	Others	6	7
Ranks	NO I	41	46
	NOII	19	21
	SNO	11	12
	PNO	12	13
	Others	7	8
Years of Working Experience	1-5	36	40
	6-10	35	39
	11-15	13	14
	Above 15 years	6	7

NOI: Nursing Officer I; NO II: Nursing officer II; SNO: Senior Nursing Officer; PNO: Principal Nursing Officer; RN: Registered Nurse; RM: Registered Midwife; BSc: Bachelor of Science; BNSc: Bachelor of Nursing Science.

Table 2: Distribution of Respondents by Knowledge of Pain Assessment Tools(n=90)

S/N	Assessment Tools	Correct Response (%)	Incorrect Response (%)
1	Numerical Rating Scale (NRS) and Visual Analogue Scale (VAS) are the Only Pain Assessment Tools (PATs) readily used by Nurses	24 (27%)	66(73%)
2	If no, specify other types you know	0(0%)	100(100%)
3	Is it necessary for patients to know the basic physiological processes associated with pain before a Pain Assessment Tools can be used on them	22(24%)	68(76%)
4	Pain Assessment Tools must be used on all patients regardless of the condition before administering analgesia	67(74%)	23(26%)
5	Analgesia dosing must be strictly based on the result gotten from Pain Assessment tools regardless of the prescription	64(71%)	26(29%)

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From table 2, it can be observed that just a little above a quarter (27%) of the respondents are aware of the availability of other tools aside numerical rating scale and visual analogue scale, 24% of the nurses were able to answer correctly if it is necessary for patient to know the basic physiological processes associated with pain before a Pain Assessment

Tool can be used on them. 74% and 71% were able to answer correctly that Pain Assessment Tools must be used on all patients regardless of the condition before administering analgesia and that analgesia dosing must be strictly based on the result gotten from Pain Assessment tools regardless of the prescription respectively.

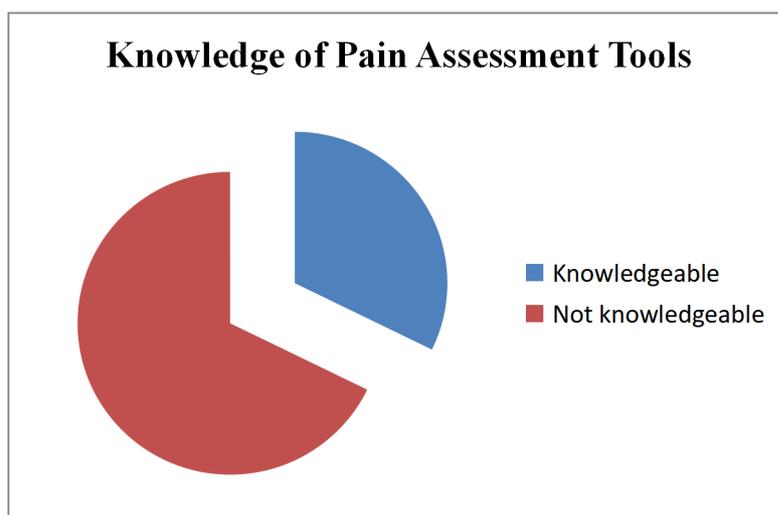


Figure 1: Ranking of Respondents' Knowledge of Pain Assessment Tools

Figure 1, shows the number of respondents that are knowledgeable of pain assessment tools based on the number of respondents that answered each item correctly as it relates to

life matter. From the above, it can be observed that the majority of the respondents (61%) were not knowledgeable of pain assessment tools.

Table 3: Acceptance of Pain Assessment Tools (PATs) (n=90)

S/N	Variables	Frequency	Percentage (%)
1	Accept Pain Assessment Tools as a very important tool for effective pain management	83	92
2	Support the opinion that the use of Pain Assessment Tools be mandated for Nurses regardless of the setting	74	82
3	Agree with the judgement of Pain Assessment Tools used on patients with regards to pain management	82	91
4	Agree that management should supply Pain Assessment Tools in your hospital	84	93
5	Will utilized the tools if supplied	82	91

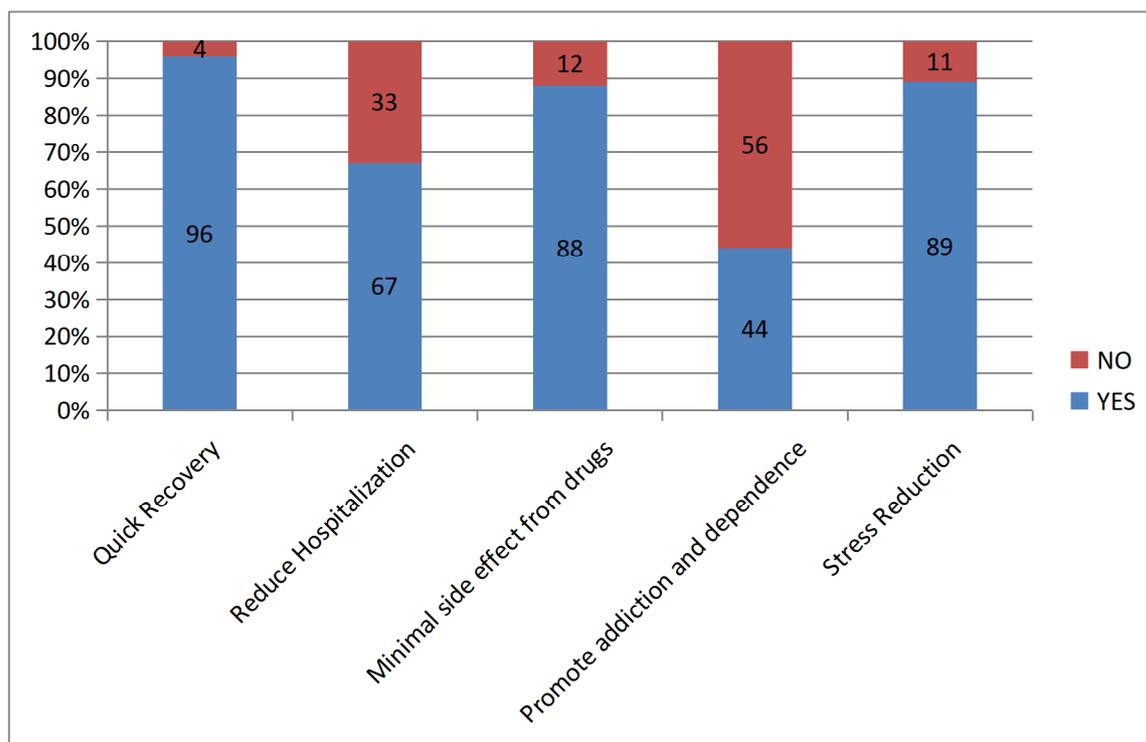


Figure 2: Perceived Effects of Pain Assessment in Pain Management.

Assessing the acceptance of Pain Assessment Tools among the nurses we observed that 92% will accept it as a tool for effective pain management, 82% of the respondents want it to be mandated for use for all nurses while 91% agreed with the judgement of the tools. 93% of the nurses want the tools to be supplied in their hospital while 91% opined that it will be utilized if supplied. The nurses generally were favourably disposed to and will accept the tools in managing their patients.

The nurses expressed their opinion on the perceived effects of using Pain Assessment Tools. Positive effects identified by the nurses include quick recovery (96%) as well as stress reduction (89%) and minimal side effects from drugs (88%). Some of the nurses (67%) also identified reduce hospitalisation as another beneficial effect of using pain assessment tool while 44% identified promotion of addiction and dependence as a likely negative effect of using the tools.

Discussion

This study revealed that the respondents demonstrated inadequate knowledge of pain assessment tools with reference to what they are and the types available. The findings corroborate what other studies reported in their findings (Al-Atiyyat, 2008; Lui, So & Fong, 2008; Kituyi, Imbaya, Wambani et.al, 2011 and Wysong, 2012) that nurses in different parts of the world have inadequate knowledge of pain assessment. Knowledge of pain assessment tools is of critical importance for accurate assessment thus, poor knowledge of the tools may translate to poor knowledge of the overall assessment and poor deployment of the assessment tools inpatient care as well as preventable patients suffering.

This study revealed that just about a quarter of the nurses have knowledge of availability of other pain assessment tools aside the numerical rating scale and visual analogue scale and yet, these few also could not mention other types of the tools available. This poor knowledge may not be unconnected

with the fact that most (70%) of our respondents were holding the least/basic nursing qualification in Nigeria (Registered Nurse/Registered Midwife) only with very few having nursing degrees. This is affirmed by the findings of studies conducted by Bernadi *et al*, (2007) and Vosball, Dunn &Shelestak (2013), who reported that higher degree and participation in pain assessment training increases the knowledge of pain assessment among nurses. The low educational attainment of most of the nurses (RN/RM) and fewer years of experience in professional nursing practice may also be contributory factors to the poor knowledge demonstrated.

Despite the poor knowledge demonstrated by the nurses, findings from this study show positive disposition toward pain assessment tools. Majority of the nurses will accept it as a tool for effective pain management to the extent that more than three quarter wants it to be mandated for use for all nurses. Salsali, Cheraghi, and Ahmadi (2009), observed that transferring knowledge into practice is affected by organizational factors such as work culture and organizational structure. These nurses may be able to assess pain accurately in their patient if they have adequate knowledge and are provided with organizational support. This is evident with the fact that a vast majority of the nurses want the tools to be supplied in their hospital with the willingness to utilize them if supplied.

The nurses expressed their opinion on the perceived effects of using pain assessment tools. Almost all the nurses identified quick recovery as an effect of using the tools. This may be correct as good pain control resulting in quick recovery is dependent upon valid

pain assessment which can be achieved by using pain assessment tool. Majority also identified stress reduction and minimal side effects from drugs as effects of using these tools. Smeltzer *et al* (2010) stated that pain constitute a physiological stressor to the patients. Pain control through a valid assessment will lead to reduction of stress associated with the pain, leading to reduction in hospital stay as identified by the nurses. Less than half of the nurses think utilizing these tools may promote addiction and dependence. This can be true for patient on opioid analgesia, however valid assessment will result in an accurate diagnosis of pain hence determining the appropriate need of analgesics that will prevent patient from experiencing unnecessary pain.

Conclusions

Conclusively, it was deduced from the findings of the study that, the level of knowledge of pain assessment tools was very low among the nurses. This may possibly result from their level of education or non-availability of the tools. The nurses perceived the tools to be very beneficial and conveyed their acceptance of the tools if made available.

Recommendation

The nurses are encouraged to broaden their knowledge on pain assessment tools through continuing education and attendance of seminars and workshops. The hospital management should also support the nurses by making the tools readily available at all levels of health care facilities. These tools can as well be produced in local languages in order to address the issue of the language barrier.

Conflict of Interest

The authors declare that no conflict of interest of any kind exists as regards to this study.

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