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# Assessment of Nurses' Knowledge, Attitude and Associated Factors towards Palliative Care in Lubumbashi's Hospitals

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**Abstract:** ***To provide quality care at the end of life or for chronically sick patients such as cancer, nurses must have good knowledge, attitude and practice about palliative care (PC). In Democratic Republic of the Congo, PC is a new concept and very little is known about the type of services offered and the readiness of nurses to provide PC. A cross-sectional descriptive study design was carried out using 112 nurses working in selected hospitals in Lubumbashi from February 2017 to March 2017, which were selected on the basis of the existence within the institution of Intensive Care Unitable of management of patients at the end-of-life with chronic diseases. A self-administered French questionnaire was used for data collection. The researchers used triangulation in their study method making use of: Frommelt's Attitude Toward Care of the Dying (FATCOD) Scale, Palliative Care Quiz for Nursing (PCQN) and practice questions. This led to enhanced validity of the data. Excel and SPSS 23 software statistical packages were applied for data entry and analysis. Descriptive statistics and bivariate statistical analysis were fitted to identify significantly associated factors with knowledge and attitude towards palliative care. The majority of nurses 57(50.9%) had above 15 years of experience, 58% of them had less than 2 years of experience in terminal and 90.2% hadn't obtained training course. Out of the total study participants, 69 (70.5%) had poor knowledge level of palliative care, and only 33 (29.5%) had good knowledge. The most respondents' attitudes levels towards palliative care were positive attitude 66 (58.9%) and 46(6.2%) negative attitude level. The nurses had poor knowledge, but their attitude towards PC was favorable. Educational status of nurses was significantly associated with Knowledge nurses towards PC. Furthermore, educational status of nurses, No PC training, Hospital institutions and the age of nurses were statistically significant with attitude of nurses towards PC. Palliative care training and continuous professional education should be regularly given for the nurses.***

**Keywords:** Palliative care, Knowledge, Attitude, Nurse, Lubumbashi

## 1. Background

Palliative care began in hospice movement. The first hospital based palliative care programme began in United States in the late 1980's. In most countries, palliative care is provided by an interdisciplinary team consisting of physicians, registered nurses, nursing assistants, social workers, hospice chaplains, physiotherapists, occupational therapists, complementary therapists, volunteers and most importantly family members[1].

WHO defines Palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-limiting illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual"[2].

By 2020, the World Health Organization (WHO) estimates that non-communicable diseases (NCDs) will be as prevalent as communicable diseases, which have been the main cause of high morbidity and mortality in sub-Saharan Africa. Despite the importance of PC in while managing NCDs, its limited development across Africa indicates many patients have not received formal PC services[3]. There were over 700 000 new cancer cases and nearly 600 000 cancer-related deaths in Africa in 2007 and it is expected that cancer rates will grow by 400% over the next 50 years[4].

Palliative care is a relatively new concept in many countries: chiefly in developed countries and is absent in several African countries. There are a number of potential approaches that may be suitable in Africa but due to scarceness of data in this field of care, it becomes difficult to choose a such approach based on evidence. However, The World Health Organization has recommended a public health strategy (PHS) as the best approach for establishing and/or integrating PC into a country. The public health approach is the science and art of preventing disease, prolonging life and promoting the health to the entire populations through the organized efforts of society[5][6]

Only four out of 53 African countries have integrated palliative care into their healthcare policy and used it as a part of a strategic plan focusing on cancer treatment. They are : Kenya, South Africa, Tanzania, and Uganda; while Rwanda and Swaziland have taken a different approach by developing stand-alone national palliative care policies[7]

When the end of life makes its inevitable appearance, patients should be able to expect reliable, human and effective care giving. Yet too many dying patients suffer unnecessarily. Nurses are central figures in advocating interventions that minimize burden and distress and enhance quality of life for their patients who are terminally ill [8] and they spend a lot of time caring patients and finally dying . Nurses take part in the deciding and making process related to those patients [9]

The nurse is a key member of health team who typically has the greatest contact with the patient. This prolonged contact gives the nurse a unique opportunity to know the patient and the caregivers, to assess in depth what is happening and what is of theimportance to the patient, and to assist the patient to cope with the effects of advancing disease. The nurse's expertise in providing physical and emotional care to the patient, symptom management, patient and family education, and in organizing the patient's environment to minimize loss of control, is critical to palliative care[10][11].

It was believed that PC is a good strategy aimed to provide comfort and maintain the highest possible quality of life as long as life remains. Therefore, the main objectives of this study were to assess knowledge, attitude, practice and associated factors towards palliative care among nurses working in Lubumbashi's Hospitals.

## 2. Methods

### Study design, area and period

A cross-sectional descriptive study was conducted with nurses in four hospitals in the city of Lubumbashi during a two-month period, from February 2017 to March 2017.

### Subjects

The target population was nurses currently working in hospitals in the city of Lubumbashi. The following hospitals were selected: Janson Sendwe Provincial Hospital, Lubumbashi University Teaching Hospital , GCM-Sud Hospital and theCongo Railway Companyhospitalof Lubumbashi. These medical structures were selected because of the infrastructure having the intensive care unit or medical resuscitation services cable in managing patients with end-of-life chronic diseases.

### Administration of questionnaires

A self-administered French questionnaire was used for data collection. The attitude scale was adopted: Frommelt Attitude Toward Care of the Dying (FATCOD) and modified so that it can fit to Congolese context. The knowledge questions were adopted from the Palliative Care Quiz for Nursing (PCQN).

The participating nurses were directly approached by visit and appointment. A written informed consent was taken from them. The data collection instrument included three sections. Section one: it concerns A socio demographic variables which includes (age, gender, institution, ward, level of education, work experience, experience of caring terminally ill and PC training).

Section two: Here, before starting to work the attitude was measured through the original FATCOD questionnaire which consists of 23 items. The tool has a5 point Likert scale. This was used to represent people's attitudes to a topic scored on 5 point scale, i.e. 1 (Strongly Disagree), 2 (Disagree), 3 (Uncertain), 4 (Agree) to 5 (Strongly Agree). The third section included knowledge questions which came from the Palliative Care Quiz for Nursing (PCQN) using questions with yes, no, or don't know answers.

### Data collection procedures

The sample size determination was based on a power of 80%, alpha of 5%, and a precision (effect size) of 3%, with a baseline proportion of 0.5 (used when the proportion is not known). The calculated sample size was 112.

### Variables of the Study

**Dependent Variables:** Knowledge, Attitude and Practice about palliative care

**Independent Variable:** Socio-demographic characteristics, professional characteristics (clinical area, year of experience, experience of caring terminally ill patients, level of education and training on palliative care).

### Operational Definitions

Good Knowledge: The mean of study participant scores and above of the mean of Palliative care knowledge test statement (PCQN).

Poor Knowledge: Study participants score below of the mean and ~~score of~~ Palliative care knowledge test (PCQN).

Positive Attitude: Study participants score the mean and above the mean score of Frommelt Attitude toward Care of the Dying (FATCOD) Scale.

Negative Attitude: those study participants score below the mean score of Frommelt Attitude toward Care of the Dying (FATCOD) Scale.

### Statistical analysis

Data was checked, entered into an Excel spreadsheet and was exported in to SPSS (Statistical Package for Social Science)version 23 for analysis. Descriptive and analytical statistics including univariate, bivariate and multivariate analysis was employed. All variables with $p<0.2$ in bivariate analysis were inserted in to the multiple logistic regression model to identify factors associated with PC. The factors were included in the final model after selection of variables by backward stepwise method Significance was obtained at Odds ratio with 95% CI and $p< 0.05$.

### Ethical consideration

The questionnaire was anonymous and was put upon completion in a sealed box for retrieval only at the time of assessment. Appropriate institutional approval was obtained beforehand from the ethics committees of the University of Lubumbashi.

## 3. Result

**Table 1:** Socio-demographic and professional characteristics of nurses

| Sociodemographic and professional characteristics of nurses | Frequency | Percent (%) |
|---|---|---|
| **Age** | | |
| 25-35 | 30 | 26,8 |
| 36-46 | 30 | 26,8 |
| 47-57 | 38 | 33,9 |
| 58-68 | 14 | 12,5 |
| **Sex** | | |
| Female | 98 | 87,5 |
| Male | 14 | 12,5 |
| **Institution** | | |
| Sendwe | 21 | 18,8 |
| LubumbasiUniversityTeachingHospital | 23 | 20,5 |
| Congo Railway Company of Lubumbashi | 48 | 42,9 |
| GCM/SudHospital | 20 | 17,9 |
| **Town** | | |
| Lubumbashi | 74 | 66,1 |
| Katuba | 12 | 10,7 |
| Kenya | 4 | 3,6 |
| Ruashi | 6 | 5,4 |
| Kampemba | 16 | 14,3 |
| **Educationalstatus** | | |
| Advanced practice nurse | 7 | 6,3 |
| practice nurse | 57 | 50,9 |
| Registered nurse | 48 | 42,8 |
| **Year of experience** | | |
| ≤ 5 | 19 | 17,0 |
| 5-10 | 22 | 19,6 |
| 11-15 | 14 | 12,5 |
| ≥16 | 57 | 50,9 |
| **Experience of caring terminally patients** | | |
| <2 | 58 | 51,8 |
| 2-5 | 54 | 48,2 |
| **Palliative care training** | | |
| No | 101 | 90,2 |
| Yes | 11 | 9,8 |

The majority of respondents 38 (33.9 %) were within the age 47-57 years followed by 30 (26.8%) were of 25-35 years or 36-46 years. Most of them were female 98 (87.5%) than male 14(12.5%). The majority of participants were practice nurse (50.9%). Other educational qualifications recorded included 7 (6.3%) Advanced practice Nurse and Registered Nurse 48(42.8%).48 (42.9%) of our investigations: some of them came from the SNCC-Hospital/Lubumbashi; other 20.5% came from university clinics of Lubumbashi. (Table 1)

The majority of nurses 57(50.9%) had above 15 years of experience with only 19 (17.0%) indicating under than 5 years of nursing experience. Respondents were asked to record if they had received training towards PC. We came to the conclusion that, the majority (90.2%) didn't obtain training course and 58% of nurses had less than 2 years' experience in terminal care. (Table 1)

**Table 2:** Distribution of nurses' knowledge towards palliative care

| | Yes | No | Don't know |
|---|---|---|---|
| Do you know the definition ofpalliative care? | 63(56.3%) | 28(25.0%) | 21(18.8%) |
| Palliative care is only appropriate in situations of a downhill trajectory or deterioration in conditions | 46(41.1%) | 56(50.0%) | 10(8.9%) |
| The extent of the disease determines the method of pain treatment | 83(74.1%) | 14(12.5%) | 15(13.4%) |
| Adjuvant therapies are important in managing pain | 87(77.7%) | 23(20.5%) | 2(1.8%) |
| Drug addiction is a major problem when morphine is used on a long-term basis forthe management of pain | 60(53.6%) | 48(42.9%) | 4(3.6%) |
| The provisions of palliative care require emotional detachment | 38(33.9%) | 62(55.4%) | 12(10.7%) |
| During the end stages of an illness, drugs that can cause respiratory depression are appropriate for the treatment of severe dyspnea | 16(14.3%) | 70(62.5%) | 26(23.2%) |
| The philosophy of palliative care is compatible with the aggressive treatment | 52(46.4%) | 51(45.5%) | 9(8.0%) |
| The use of placebos is appropriate in the treatment of some types of pain | 85(75.9%) | 21(18.8%) | 6(5.4%) |
| Morphine is not an effective analgesic for the control of chronic pain in cancer | 43(38.4%) | 63(56.3%) | 6(5.4%) |
| The accumulation of losses renders burnout Inevitable for those who work in palliative care | 80(71.4%) | 13(11.6%) | 19(17.0%) |
| Manifestations of chronic pain are different from those of acute pain. | 95(84.8%) | 17(15.2%) | 0(0.0%) |
| Patients at end stage have the right to choose "Do not resuscitate" (DNR). | 33(29.5%) | 63(56.3%) | 16(14.3%) |
| Patients at end stage should be encouraged to have hope against all odds. | 92(82.1%) | 13(11.6%) | 7(6.3%) |

Nearly 60% of the respondents knew the definition of PC and 41.1% agreed that PC is being given when patient's conditions are deteriorating. Similarly 53.6% of nurses responded that addiction is noticed as the major health problem when morphine is used in long term. 71.4% of the subjects agreed that accumulation of losses render burn out for those who work in PC. Of the total respondents 77.7%, 29.5% and 82.1% agreed that adjuvant therapies are important in pain management, that the patients right not to resuscitate (DNR) should be respected, and that terminally ill patients should be encouraged to have hope, respectively. (see Table 2).

**Table 3:** Distribution of level nurses' knowledge towards palliative care

| Level of Knowledge | Frequency | Percent |
|---|---|---|
| Poor knowledge | 79 | 70,5 |
| Good knowledge | 33 | 29.5 |
| **Total** | **112** | **100** |

Table 3 shows that 79 (70.5%) nurses had poor knowledge of palliative care, and only 33 (29.5%) had good knowledge.

**Table 4:** Distribution of nurses' attitude according to their degree of agreement

| No | Statements | SD (%) | D (%) | U (%) | A (%) | SA (%) |
|---|---|---|---|---|---|---|
| 1 | Palliative care is given only for dying patient | 42(37.5%) | 26(23.2%) | 14(12.5%) | 19(17.0%) | 11(9.8%) |
| 2 | As a patient nears death; the nurse should withdraw from his/her involvement with the patient | 73(65.2%) | 15(13.4%) | 6(5.4%) | 11(9.8%) | 7(6.3%) |
| 3 | Giving nursing care to the chronically sick patient is a worthwhile learning experience | 18(16.1%) | 6(5.4%) | 0(0.0%) | 27(24.1%) | 61(54.5%) |
| 4 | It is beneficial for the chronically sick person to verbalize his/her feelings | 7(6.3%) | 9(8.0%) | 5(4.5%) | 33(29.5%) | 58(51.8%) |
| 5 | Family members who stay close to a dying person often interfere with a professionals' job with the patient | 20(17.9%) | 3(2.7%) | 11(9.8%) | 31(27.7%) | 47(42.0%) |
| 6 | The length of time required to give nursing care to a dying person would frustrate me | 38(33.9%) | 4(3.6%) | 4(3.6%) | 37(33.0%) | 29(25.9%) |
| 7 | Families should be concerned about helping their dying member make the best of his/her remaining life | 2(1.8%) | 10(8.9%) | 9(8.0%) | 47(42.0%) | 44(39.3%) |
| 8 | The nurse should not be the one to talk about death with the dying person | 30(26.8%) | 4(3.6%) | 6(5.4%) | 39(34.8%) | 33(29.5%) |
| 9 | The family should be involved in the physical care of the dying person | 3(2.7%) | 2(1.8%) | 2(1.8%) | 81(72.3%) | 24(21.4%) |
| 10 | It is difficult to form a close relationship with the family of a dying member | 45(40.2%) | 24(21.4%) | 3(2.7%) | 29(25.9%) | 11(9.8%) |
| 11 | There are times when death is welcomed by the dying person | 13(11.6%) | 2(1.8%) | 19(17.0%) | 33(29.5%) | 45(40.2%) |
| 12 | Nursing care for the patient's family should continue throughout the period of grief and bereavement | 54(48.2%) | 8(7.1%) | 1(0.9%) | 14(12.5%) | 35(31.3%) |
| 13 | The dying person and his/her family should be the in-charge decision makers | 13(11.6%) | 3(2.7%) | 9(8.0%) | 45(40.2%) | 42(37.5%) |
| 14 | Addiction to pain relieving medication should not be a nursing concern when dealing with a dying person | 48(42.9%) | 13(11.6%) | 9(8.0%) | 15(13.4%) | 27(24.1%) |
| 15 | Nursing care should extend to the family of the dying person | 30(26.8%) | 21(18.8%) | 14(12.5%) | 19(17.0%) | 28(25.0%) |

**Table 4:** Continued

| No | Statements | SD (%) | D (%) | U (%) | A (%) | SA (%) |
|---|---|---|---|---|---|---|
| 16 | When a patient asks, "Nurse am I dying? 'I think it is best to change the Subject to something cheerful | 5(4.5%) | 8(7.1%) | 6(5.4%) | 15(13.4%) | 78(69.6%) |
| 17 | I am afraid to become friends with chronically sick (cancer) and dying patients | 75(67.0%) | 29(25.9%) | 0(0.0%) | 0(0.0%) | 8(7.1%) |
| 18 | I would be uncomfortable if Ientered the room of a terminally ill person (cancer) and found him/her crying | 50(44.6%) | 5(4.5%) | 5(4.5%) | 22(19.6%) | 30(26.8%) |
| 19 | I would be uncomfortable talking about impending death with the dying person | 23(20.5%) | 9(8.0%) | 1(0.9%) | 31(27.7%) | 48(42.9%) |
| 20 | It is possible for nurses to help patients prepare for death | 32(28.6%) | 14(12.5%) | 4(3.6%) | 19(17.0%) | 43(38.4%) |
| 21 | Death is not the worst thing that can happen to a person | 46(41.1%) | 4(3.6%) | 24(21.4%) | 28(25.0%) | 10(8.9%) |
| 22 | I would feel like running away when the person actually died | 82(73.2%) | 11(9.8%) | 5(4.5%) | 0(0.0%) | 14(12.5%) |
| 23 | I would not want to be assigned to care for a dying person. | 57(50.9%) | 30(26.8%) | 5(4.5%) | 13(11.6%) | 7(6.3%) |

Where: SA= Strongly Agree, A=Agree, U=Undecided, D=Disagree, SD= Strongly Disagree

Attitudes of nurses toward PC are summarized in Table 4. More than one-third of the nurses were more likely to disagree of Palliative care is given only for dying patient (37.5%), as well as they also disagree if the nurse should withdraw from his/her involvement with the patient (65.2%). On the other hand, approximately fifty percent (51.8%) of nurses stronglyagreed with beneficial for the chronically sick person to verbalize his/her feelings.

The attitudes toward the length of time required to give nursing care to a dying person would frustrate the nurse were slightly different from strongly disagree to agree (strongly disagree 33.9%), agree 33.0%). Nurses' attitudes toward family should maintain as normal an environment as possible for their dying member (agree 42.0%). Whereas the attitudes toward the family should be involved in the physical care of the dying person were varied from agree to disagree (72.3% and 21.4%). 40.2% of nurses were strongly disagreeingthat it is difficult to form a close relationship with the family of a dying member. Approximately one half of nurses (48.2%) strongly disagreed with Nursing care for the patient's family should continue throughout the period of grief and bereavement , 26.8% said that nursing care should not be extend to the family of the dying person . In the opposite, the nurse thought that he would be uncomfortable if he entered the room of a terminally ill person and found him/her crying (26.8%).

Their attitudes were slightly different regarding the afraid to become friends with chronically sick and dying patients. (Strongly disagree 67.0%, disagree 25.9%, strongly agree 7.1%). Surprising 69.6% strongly agreed that when a patient asks, "Nurse am I dying?' I think it is best to change the Subject to something cheerful.

**Table 5:** Distribution of nurses' attitude towards palliative care

| Attitude | Frequency | Percent |
|---|---|---|
| Negative | 46 | 41,1 |
| Positive | 66 | 58,9 |
| **Total** | **112** | **100** |

Table above show that 66 nurses (58.9%) had a positive attitude compared to 46 (6.2%) who had a negative attitude towards palliative care.

**Table 6:** The association between associated factors and knowledge of Nurses towards palliative care

| Factors | Knowledge | | COR [95%CI] | p |
|---|---|---|---|---|
| | Good | Poor | | |
| **Sex** | | | | |
| Male | 5(35. 7%) | 9(64. 3%) | 1.39 [0.43-4.51] | 0.55 |
| Female | 28(28. 6%) | 70(71. 4%) | | |
| **Age** | | | | |
| 25-35 | 8(26. 7%) | 22(73. 3%) | | 0.98 |
| 36-46 | 9(30.0%) | 21(70.0%) | | |
| 47-57 | 12(31.6%) | 26(68.4%) | | |
| 58-68 | 4(28.6%) | 10(71.4%) | | |
| **Institutions** | | | | |
| UniversityClinics of Lubumbashi | 4(17.4%) | 19(82.6%) | | 0.16 |
| GCM/SudHospital | 5(25.0%) | 15(75.0%) | | |
| Sendwe | 10(47.6%) | 11(52.4%) | | |
| Congo Railway Company/ Lubumbashi | 14(29.2%) | 34(70.8%) | | |
| **Educational status** | | | | |
| Registered nurse | 19(39.6%) | 29(68.8%) | 2.34[1.02-5.36] | 0.04 |
| Advanced practice nurse and practice nurse | 14(21.9%) | 50(78.1%) | | |
| **Year of experience** | | | | |
| < 5 | 4(21.9%) | 15(78.1%) | 0.59[0.18-1.93] | 0.58 |
| ≥ 5 | 29(31.2%) | 64(68.8%) | | |
| **Experience of caring terminally patients** | | | | |
| < 2 | 15(25.9%) | 43(74.1%) | 0.70[0.31-1.58] | 0.39 |
| ≥ 2 | 18(33.3%) | 36(66.7%) | | |
| **Palliative care training** | | | | |
| Yes | 6(54.5%) | 5(45.5%) | 3.29[0.93-11.66] | 0.12 |
| No | 27(26.7%) | 74(73.3%) | | |

**Table 7:** The association between associated factors and attitude of Nurses towards palliative care

| Factors | Attitude | | COR [95%CI] | P |
|---|---|---|---|---|
| | Favorable | Non favorable | | |
| Sex | | | | |
| Male | 7(50.0%) | 7(50.0%) | 0.66 [0.22 -2.03] | 0.47 |
| Female | 59(60.2%) | 39(39.8%) | | |
| **Age** | | | | |
| 25-35 | 11(36.7%) | 19(63.3%) | | 0.011 |
| 36-46 | 18(60.0%) | 12(40.0%) | | |
| 47-57 | 25(65.8%) | 13(34.2%) | | |
| 58-68 | 12(85.7%) | 2(14.3%) | | |
| **Institutions** | | | | |
| Lubumbashi University Teaching Hospital | 13(56.5%) | 10(43.5%) | | 0.000 |
| GCM/SudHospital | 11(55. 0%) | 9(45.0%) | | |
| Sendwe | 0(0.0%) | 21(100.0%) | | |
| Congo Railway Company/ Lubumbashi | 42(87.5%) | 6(12.5%) | | |
| **Educational status** | | | | |
| Advanced practice nurse and practice nurse | 43(67.2%) | 21(32.8%) | 2.23[1.03-4.81] | 0.04 |
| Registered nurse | 23(47.9%) | 25(52.1%) | | |
| **Year of experience** | | | | |
| < 5 | 11(57.9%) | 8(42.1%) | 0.95[0.35-2.58] | 0.92 |
| ≥ 5 | 55(59.1%) | 38(40.9%) | | |
| **Experience of caring terminally patients** | | | | |
| < 2 | 38(65.5%) | 20(34.5%) | 0.57[0.27-1.21] | 0.142 |
| ≥ 2 | 28(51.9%) | 26(48.1%) | | |
| **Palliative care training** | | | | |
| No | 65(64.4%) | 36(35.6%) | 18.06[2.22-146.79] | 0.001 |
| Yes | 1(9.1%) | 10(90.9%) | | |

## 4. Discussion

The nurses in our study were predominantly female (87%), aged 25-35 (26.8%), 36-57 years (60.7%) and 58-68 years (12.5%). For professional experienceand level of educationconcern, the greatest seniority, at least 16 years, was 50.9%; while the licensed nurses (A0) were fewer (6.3%) than their graduate colleagues (A1), 50.9%. Our results on gender, age and seniority are similar to those reported in the literature, with a total workforce of 98

nurses: 91.6% female, 11 years of average tenure in the trade and 35.9 years of average age. [12]. The predominance of female is justified by the reform of nursing initiated by FloranceNightingale. One of its motivations is to contribute to the improvement of public health through nursing and, to achieve this; it wishes to recruit brilliant women who are willing and able to learn about art and science in nursing. F. Nightingale believes that women are naturally caring and that nursing is only a normal extension of their role as wives and mothers [13]. Several authors have recognized the influence of the reform of F. Nightingale as a decisive factor in the scarcity of men in the nursing workforce [14-15]. Roughly excluded from general care and relegated to asylums where their physical strength was used to control violent patients [16]. Through an impressive review of the writings, Carbucia quoted by Roy highlights that over the centuries Carbucia refers to numerous works attesting to the masculine presence in the universe of care since antiquity [13], the nursing profession is now almost exclusively associated with the female and maleseem to desert this field in which they were, before the nineteenth century, very pre The predominance of nurses in A1 and A2 (93.7%) can be explained by the fact that most hospitals prefer the latter for efficiency and effectiveness reasons.

It has also appeared in Table 3 that such a rate not only is far lower than those derived from other similar studies [17]. Considering the above, it is logical that the results we obtained showed that the majority of nurses had poor knowledge in palliative care (70.5%) and very few (29.5%) had good knowledge. These results are in line with those reported by many other researchers: Rolandson et al. (2008), Proctor et al. (2000), Arber (2001), Knapp (2009), and Carroll et al. (2005) (Arber, 2001), Carroll, G., Brisson, DP, Ross, MM, Labbe, 2005, Knapp, CA, Madden, V., Wang, H., Kassing, K., Curtis, , P, Shenkman, 2009. Proctor, M., Grelish, L., Coates, M., Sears, 2000. Rolandson, S., Hayes, L., Carey, M., 2008). This finding contrasts with the study carried out in Ethiopia (56%) by samuelAnteneh[4], and Masumbuku (52%) in DRC[18]. In all studiesthus documented, the low level of knowledge is justified by some constraints, whichare valid in our case, the lack of knowledge of the palliative approach among health professionals and the lack of initial and palliative care.

The training to the palliative approach is handicapped by some beliefs that seem to confer negative and binding views on nurses. Another reason would be that palliative care training is not integrated into nursing education programs and even physicians in our country. This observation is consistent with that of Sandhu et al. who identified clear gaps in palliative care among undergraduate health care students. Similarly, Weber et al. in Germany, also found insufficient knowledge of palliative care among the finalists of the Faculty of Medicine [19].

Concerning attitude, 58.9% of nurses had a positive attitude towards palliative care (Table5). This study contrasts with the study carried out in Taif City, Saudi Arabia, where 83% of respondents had a positive attitude [20] and the Udupi district study 92.8% of respondents had a positive attitude towards palliative care [21]. The results of our study confirmed an association between age, type of health institution, level of study. It was noted that nurses at the A0 and A1 levels were 2.23 times lucky enough to have a good attitude towards palliative care patients than A2 nurses. This is corroborated by several authors [4;22].This finding can be explained by the fact that nurses with a higher education degree can easily understand the FATCOD scale used in this study than nurses at the A2 level.

In relation to the type of institution, our study showed that the nurses of the parastatal structures were 8.43 times the chance to have a favorable attitude and those coming from the state structures. This can be explained by the working environment in the two types of structures that are favorable in the parastatal structures. A positive practice environment is defined as a practice environment that maximizes the health and well-being of nurses, the quality of outcomes for patients, and organizational performance. Practice-friendly environments are beneficial not only to nurses but also to other health care workers; they predispose to the excellence of the services and therefore to the quality of the results for the patients. It should be noted in our study that nurses aged over 46 years had a favorable attitude than those under 46 years of age. This can be explained by the experience gained within the health structures.

Our studies found that non-palliative care training, the non-existence of the palliative approach were significantly associated with the palliative care positive attitude. This observation does not follow which reported by several authors [3-4]. This allows us to note that attitude is therefore a mental tendency preceding behavior and constitutes an intermediate variable which prepares the individual to act in a certain way with regard to an object or a given event . The attitude has several characteristics, in fact it is not innate, it is also the consequence of an apprenticeship which is formed through information and personal experiences, and finally the attitude is positively or negatively oriented, and has an intensity that varies according to the degree of involvement with the object or situation.

## 5. Conclusion

This study revealed that the majority of nurses havefavorable attitude on palliative care;in contrast they had poor knowledge towards PC. In thisregard, the educational status of nurses was significantly associatedwith Knowledge nurses towards PC. Furthermore, educational status of nurses, No PCtraining, Hospital institutions and the age of nurses were statistically significant with attitude ofnurses towards PC.In conclusion much should be done to assist nursesperform their duties based on the knowledge they graspin various trainings, workshops, formal or informal education.

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