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Predictors of Nurses' Attitudes to Palliative Care in Lubumbashi

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Abstract

Palliative care is essential for enhancing the quality of life for patients with life-threatening illnesses, with nurses playing a crucial role in its delivery. Nurses' attitudes towards palliative care significantly impact the quality of care provided. Understanding the factors shaping these attitudes is vital for optimizing palliative care services. This study aims to investigate the demographic and professional variables associated with nurses' attitudes towards palliative care in Lubumbashi.

We conducted a cross-sectional descriptive cross-sectional study in the city of Lubumbashi. The different frequencies were compared using the chi-square test. A $p < 0.05$ was considered statistically significant. A logistic regression with Wald's step-by-step method allowed us to establish relationships between sociodemographic and attitude variables.

The type of institution (parastatal or state) and the existence of a palliative approach in the structure were significantly associated with the occurrence of a favorable attitude towards palliative care, with adjusted Odds Ratios of 8.277 (95% CI: 3.28 -23.50) and 2.76 (CI: 1.028-7.43) respectively. However, the data in this table show that palliative care training and level of education were more likely to be factors influencing a favorable attitude to palliative care, with adjusted ORs of 0.092 (95% CI: 0.010-0.851) and 0.36 (CI: 0.132 -0.963) respectively.

Educational initiatives and policy interventions are crucial for shaping nurses' attitudes towards palliative care. Addressing these through targeted programs is essential for promoting a positive palliative care culture.

This study provides insights into factors influencing nurses' attitudes towards palliative care in Lubumbashi. Lower education levels and para-state employment correlated with more favorable attitudes, while training and policies were lacking. Educational and policy interventions are necessary to foster a positive palliative care culture among nurses and improve end-of-life care quality.

Keywords: Predictors, Nurses' Attitudes, Palliative Care, Lubumbashi

Introduction

Palliative care, a care approach focused on pain relief and improving the quality of life for patients with incurable or terminal illnesses, has become an essential component of healthcare services in many countries (Rome *et al*., 2011) [9]. In this context, the role of nurses is crucial as they are often the primary caregivers to come into contact with patients and coordinate their medical, physical, emotional, and psychosocial needs(Imanigoghary *et al*., 2017) [4]. However, despite the growing importance of palliative care, the literature highlights significant variations in nurses' attitudes towards this practice. Some studies have shown that some nurses adopt a proactive and engaged approach towards palliative care, recognizing its importance in improving the quality of life for end-of-life patients (Moran *et al*., 2021; Robinson *et al*., 2023) [7, 8]. However, other research has also shed light on mixed or negative attitudes of some nurses towards palliative care, often due to concerns such as fear of death, lack of specific training, or personal beliefs (Hao *et al*., 2021; Zahran *et al*., 2022) [2, 13].

This disparity in attitudes raises the question of the factors that influence nurses' perceptions and attitudes towards palliative care. Understanding these determinants is crucial to optimize the delivery of palliative care and ensure a quality end-of-life care approach for patients. In this study, we aim to explore in-depth the predictive factors of nurses' attitudes towards palliative care. We will examine variables such as professional experience in palliative care, level of training and education, personal and religious beliefs, as well as other contextual and organizational variables that may influence nurses' attitudes. By identifying these determinants, we aim to provide valuable insights to guide training policies, educational programs, and interventions aimed at promoting a culture of palliative care within nursing care teams.

Material and methods

Type of study and period of study

This is a multicenter, cross-sectional descriptive study of the "one given day" type, carried out in the city of Lubumbashi during the period from November 2016 to July 2017.

Target population, Inclusion and Exclusion criteria

The population concerned by this study consisted of nursing staff working in the four major hospitals in the city of Lubumbashi: Sendwe hospital, the University Clinics, the GCM/SUD hospital and the SNCC medical complex of Lubumbashi. The nurses found on D-day at the research site and who also gave their informed consent were included in the study. The day of the survey was determined by a double draw: That of a week during the study period and that of a weekday between Monday and Friday. The nurses were excluded from the study because they were absent on D-day at the research site.

Sample size

The sample size calculation for nursing staff was carried out using the Epi Info 7 software in its Stat Cal function for a descriptive study. Sample size determination was based on a power of 80%, alpha of 5%, and precision (effect size) of 3%, with a base proportion of 0.5 (used when the proportion is not known). The calculated sample size was 112.

Sampling method

The selection of study sites, for the definition of the source population, was made by purposive sampling given the existence within the hospital of intensive care or resuscitation services capable of managing patients suffering from cancer and at the end of life. The following hospitals were selected: Janson Sendwe Provincial Hospital, University Clinics of Lubumbashi, GCM Sud Hospital and the SNCC/Lubumbashi Medical Complex.

Collection of data

Data collection was carried out based on a questionnaire developed for this purpose, tested and standardized. The first was addressed to cancer patients (see appendix 1) and the second to nursing staff (see appendix 2). For data collection, we used investigators who were also trained.

Attitude assessment of nursing staff was carried out by the FATCOD questionnaire comprising 23 items. For each item used on "attitude", the Likert scale was used, indicating 5 possible responses, i.e. 1 (Strongly disagree), 2 (Disagree), 3 (Uncertain), 4 (Agree), 5 (Strongly Agree). The third included knowledge questions on palliative care among nurses (PCQN) and the answers to the questions were: Yes, no, or don't know. Ross *et al*. (1996) coded each question giving the value 1 for a correct answer and the value 0 for any participant who gave the answer "no or don't know".

Operational definitions

- Positive or supportive attitude = study participants scoring above average on the FATCOD scale.
- Negative or unsupportive attitude = study participants scoring below the average on the FATCOD scale.

Data analysis technique

Double data entry, by two separate operators, was done using the EPI-INFO software. The creation of an input mask associated with a control file, then the comparison of the two input files made it possible to correct, clean up and refine the database. The analysis of the data collected as part of this thesis was both qualitative and quantitative. All data collected was entered with Epi Info then analyzed with IBM SPSS Statistics version 23.

The different frequencies were compared using the chi square test. A $p < 0.05$ was considered statistically significant. In a univariate analysis, the chi square test was used to check the link between the independent variables and the dependent variable (Attitude).

A logistic regression with a step-by-step Wald method made it possible to establish the relationships between the variables sociodemographic (variables selected based on the criterion $p < 0.20$) and those related to attitude.

Ethical considerations

Patients and nursing staff who met the inclusion criteria were informed of the objectives of the study and the conditions of participation. Their oral informed consent was obtained before starting to fill out the forms. Participation in the study was free. The information was given in a language understood by her, in a standardized and adapted manner. The protocol for this study was approved by the ethics committee of the University of Lubumbashi.

Results

Table 1: Distribution of nurses according to age, hospital institution and level of study

Age (in years)	Number (n=112)	Percentage
25-35	30	26.8
36-46	30	26.8
47-57	38	33.9
58-68	14	12.5
Hospital institution		
Sendwe Hospital	21	18.8
ASS	23	20.5
SNCC Hospital / L'SHI	48	42.9
GCM / South Hospital	20	17.9
Residence		
Lubumbashi	74	66.1
Katuba	12	10.7
Kenya	4	3.6
Ruashi	6	5.4
Kampemba	16	14.3
Total	112	100
Level of study		
A0	7	6.3
A1	57	50.9
A2	48	42.8

The majority of respondents (60.7%) had an age of 36-57years. Young people (25-35years) represented26.8% and the oldest (58-68 years) 12.5%. The respondents came from SNCC (42.9%), GCM (17.9%), SENDWE (18.8%) and CUL (20.5%) hospitals. Two thirds of the nurses resided in the commune of Lubumbashi (66.1%). In 93.7% of cases, they were level A1 (50.9%) and level A2 (42.8%). Our respondents were overwhelmingly female (87%), i.e. a E/M sex ratio of 7/1.

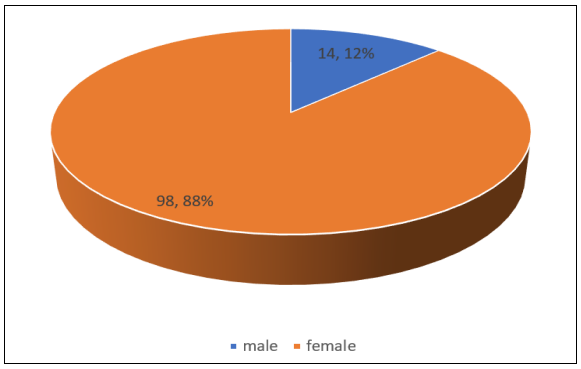

Fig 1: Distribution of nurses by gender

Table 2: Distribution of nurses according to training in palliative care, professional experience and care of terminally ill patients

Professional experience (in years)	Number (n=112)	Percentage
<5	19	17.0
5-10	22	19.6
11-15	14	12.5
≥16	57	50.9
Experience caring for the terminally ill (in years)		
<2	58	51.8
≥ 2	54	48.2
Palliative care training		
No	101	90.2
Yes	11	9.8

It can be seen from Table Furthermore, regarding palliative care (SP), 51.8% of respondents had less than two years of experience in caring for terminally ill patients, compared to 48.2% who had at least two years. Experience and 9.8% had training in palliative care.

Table 3a: Distribution of nurses' attitudes according to their degree of agreement

S. No	Declarations	Strongly disagree (%)	At variance (%)	Uncertain (%)	All right (%)	Totally agree (%)
1	Palliative care is given only to dying patients	42 (37.5%)	26 (23.2%)	14 (12.5%)	19 (17.0%)	11 (9.8%)
2	When the patient approaches death; the nurse must withdraw her participation	73 (65.2%)	15 (13.4%)	6 (5.4%)	11 (9.8%)	7 (6.3%)
3	Providing nursing care to the patient with chronic illnesses is a useful learning experience	18 (16.1%)	6 (5.4%)	0 (0.0%)	27 (24.1%)	61 (54.5%)
4	It is beneficial for the chronically ill person to verbalize their feelings.	7 (6.3%)	9 (8.0%)	5 (4.5%)	33 (29.5%)	58 (51.8%)
5	Family members who remain near a dying person often interfere with the work of health professionals	20 (17.9%)	3 (2.7%)	11 (9.8%)	31 (27.7%)	47 (42.0%)
6	The length of time needed to provide nursing care to a dying person can be frustrating	38 (33.9%)	4 (3.6%)	4 (3.6%)	37 (33.0%)	29 (25.9%)
7	Families should be concerned about helping their dying members, making the most of their remaining life	2 (1.8%)	10 (8.9%)	9 (8.0%)	47 (42.0%)	44 (39.3%)
8	The nurse should not be the only 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 participate 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 accepted 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 must continue throughout the period of grief and bereavement	54 (48.2%)	8 (7.1%)	1 (0.9%)	14 (12.5%)	35 (31.3%)

Table 3b: Distribution of nurses' attitudes according to their degree of agreement

S. No	Declarations	Strongly disagree (%)	At variance (%)	Uncertain (%)	All right (%)	Totally agree (%)
13	The dying person and their family should be the decision-makers in charge	13 (11.6%)	3 (2.7%)	9 (8.0%)	45 (40.2%)	42 (37.5%)
14	Dependence on pain-relieving medications should not be a nursing problem when treating 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 dying person's family	30 (26.8%)	21 (18.8%)	14 (12.5%)	19 (17.0%)	28 (25.0%)
16	When a patient asks, "Nurse am I dying?" I think it's best to change the theme subject to something cheerful	5 (4.5%)	8 (7.1%)	6 (5.4%)	15 (13.4%)	78 (69.6%)
17	I fear becoming friends with chronically ill (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 I walked into the room of a terminally ill person (cancer) and found them 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 a 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 the urge to flee when the person is actually dead	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%)

Overall, two main observations emerge from the large painting XVIII. Indeed, of the 23 assertions presented, there are:

- Twelve where the agreement rates, varying between 58.9% and 97.3%, are higher than those of disagreements. This represents a rate of 52.2%. To this first category belong in particular assertions 9 (93.7%), 4 (84%), 6 (83%), 7 (81.3%), 3 (78.6%) and 13 (77.7%).
- Eleven where disagreement supplants agreement, a rate of 47.8%. Here, the rates vary between 44.7% and 92.9%. This is the case for declarations 17 (92.9%), 22 (83%), 2 (78.6%), 23 (77.7%) and 10 (61.6%).

The two figures below show respectively that 66 nurses (58.9%) had a positive attitude against 46 (41.1%) who had a negative attitude, towards palliative care and that 91.1% of them declared having already participated in the care of a person suffering from cancer during their career.

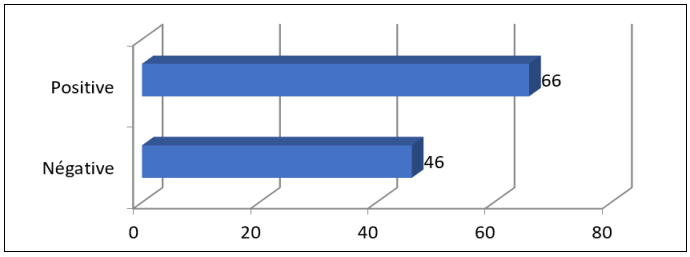

Fig 2: Evaluation of the attitude of the nurses interviewed

Table 4: Association between age and nurses' attitudes towards palliative care

Parameters studied	Attitude		OR [95% CI]	p
	Favorable	Not favorable		
Age				
25-35	11(36.6%)	19(63.3%)	1	
36-46	18(60.0%)	12(40.0%)	2.59[0.91-7.34]	0.07
47-57	25(65.8%)	13(34.2%)	3.32[1.22-9.03]	0.02
58-68	12(85.7%)	2(14.3%)	10.36[1.71-106.15]	0.006
Sex				
Feminine	59(60.2%)	39(39.8%)	1.51[0.49-4.65]	0.47
Male	7(50.0%)	7(50.0%)		
Type of institution				
Parastatal	53(77.9%)	15(22.1%)	8.43[3.55-20.01]	<0.0001
State	13(29.5%)	31(70.5%)		
Level of study				
A0 & A1	43(67.2%)	21(32.8%)	2.23[1.03-4.81]	0.040
A2	23(47.9%)	25(52.1%)		

Table 5: Association between professional experience, terminal care experience and nurses' attitude towards palliative care

Parameters studied	Attitude		OR [95% CI]	p
	Favorable	Not favorable		
Professional experience				
<5	11(57.9%)	8(42.1%)	0.80[0.28-2.31]	0.68
5-10	11(50.0%)	11(50.0%)	0.58[0.22-1.58]	0.29
11-15	8(57.1%)	6(42.9%)	0.78[0.23-2.55]	0.68
≥16	36(63.2%)	21(36.8%)	1	
Experience in terminal care				
<2	38(65.5%)	20(34.5%)	1.76[0.82-3.77]	0.14
2-5	28(51.9%)	26(48.1%)		
Palliative care training				
No	65(64.4%)	36(35.6%)	18.1[2.22-146.80]	0.0004
Yes	1(9.1%)	10(90.9%)		
Existenceof the palliative approach				
No	50(69.4%)	22(30.6%)	3.41[1.52-7.64]	0.002
Yes	16(40.0%)	24(60.0%)		
Participation in care				
No	8(80.0%)	2(20.0%)	3.03[0.61-15.00]	0.16
Yes	58(56.9%)	44(43.1%)		

Table 6: Logistic regression of the different explanatory variables of the nurse's attitude towards palliative care

Explanatory factors of attitude	HAS	ES	Wald	p	Exp(B)	IC for Exp(B) 95%	
						Lower	Superior
Type of institution (parastatal vs. state)	2.17	0.503	18.66	0.000	8.77	3.28	23.50
Level of study (A1&A0 vs A2)	-1.030	0.506	4.14	0.042	0.36	0.132	0.963
Palliative care training (yes vs no)	-2,391	1,137	4.42	0.036	0.092	0.010	0.851
Existence of the palliative approach as a management strategy for cancer patients in the structure (yes vs no)	1,017	0.505	4.06	0.044	2.76	1,028	7.43
Constant	1.11	1,185	0.89	0.347	3.05		

Legend: A: Regression coefficient; ES: Standard error of the regression coefficient; Wald: Wald test; p: adjusted p-value; Exp(B): Adjusted Odds Ratio, CI: Confidence interval of Exp(B).

The type of institution (parastatal or state) and the existence of the palliative approach in the structure were significantly associated with the occurrence of a favorable attitude regarding palliative care with adjusted Odds Ratio respectively of 8.277 (CI: 3 .28 -23.50 at 95%) and 2.76 (CI: 1.028-7.43). However, the data in this table show that training in palliative care and level of education were rather significant factors in a favorable attitude towards palliative care because their adjusted ORs are respectively 0.092 (CI: 0.010-0.851 at 95%) and 0.36 (CI: 0.132 -0.963). Thus, the model for predicting a favorable attitude towards palliative care can be written as follows:

$$\mathbf{P= (Y=favorable\ attitude\ /X=xi)=}\frac{e^{1,11+2,17.x1-1,03.x2-2,391.x3+1,017x4+1,47.x5}}{1+e^{1,11+2,17.x1-1,03.x2-2,391.x3+1,017x4+1,47.x5}}$$

Discussion

Regarding attitude, 58.9% of nurses had a positive attitude towards palliative care (Fig 10). This rate is lower than those reported by Youssef(Youssef HAM, Mansour MAM, Al-Zahrani SSM, Ayasreh IRA, 2015) [12], in Saudi Arabia, in Taif City, where 83% of respondents had a positive attitude and by Karkada (Karkada Suja, Baby S Nayak, 2011) [5] in the Udupi district of India. Here 92.8% of respondents had a favorable attitude towards palliative care.

In terms of association, our study confirmed a statistically significant association between age, type of health institution, and level of study. Indeed, it was noted that nurses at level A0 and A1 were 2.23 times more likely to have a good attitude towards palliative care patients than A2 nurses. This is corroborated by several authors(Freda de Kock, 2011; Hiwot Kassa, Rajalakshmi Murugan, Fissiha Zewdu, Mignote Hailu, 2014; Wafaa G, Ali M, 2010) [1, 3, 11]. This finding can be explained by the fact that nurses with a higher education diploma can easily understand the FATCOD scale used than nurses at level A2.

In relation to the type of institution, the results recorded indicated that nurses from parastatal structures were 8.43 times more likely to have a favorable attitude than those coming from state structures. This can be explained by the working environment in both types of structures which, for certain reasons, is favorable in parastatal structures. A supportive practice environment means a practice environment that maximizes the health and well-being of nurses, the quality of patient outcomes, and organizational performance. Supportive practice environments benefit not only nurses, but other health care workers as well; they predispose to the excellence of services and therefore to the quality of results for patients. It should be noted in our study that nurses aged over 46 had a favorable attitude than those under 46. This would most likely result from the experience acquired within health structures.

Our study revealed that the lack of training in palliative care and the non-existence of the palliative approach were significantly associated with the favorable attitude related to palliative care. This observation does not match that reported by several authors (Hiwot Kassa, Rajalakshmi Murugan, Fissiha Zewdu, Mignote Hailu, 2014; Samuel Anteneh, Hiwot Kassa, Tesfaye Demeke, 2016) [3, 10]. This lack of concordance leads us to consider the multidimensional nature of the attitude mentioned by several authors, such as Benjamin Lernout. They are unanimous on the fact that attitude has three components, cognitive, affective and conative. (Lernoud, 2002) [6]. The cognitive component or the set of ideas and knowledge maintained

with regard to an object or a class of objects corresponds to what the individual knows about the object (in our case palliative care). The affective component corresponds to what the individual feels about palliative care and the conative component, also called behavioral component, corresponds to the way in which the individual is predisposed to act towards the object. Attitude is formed under the influence of belonging and reference groups which are themselves subject to the influence of the mass media (television, radio, written press, etc.) and the personality of the individual. Who draws on his experiences. However, as far as our field of investigation is concerned, palliative care as such has never been integrated into our health system, which integration could allow nursing staff to have experience in this area. In our case, it is rare in the city of Lubumbashi to see the mass media interested in this subject.

Conclusion

In conclusion, this study delved into the factors influencing nurses' attitudes towards palliative care in Lubumbashi. The findings revealed a significant association between various demographic and professional variables and nurses' attitudes towards palliative care. Notably, nurses with lower educational levels (A0 & A1) exhibited a more favorable attitude compared to those with higher levels of education (A2). Additionally, nurses working in para-state institutions demonstrated a higher likelihood of holding a positive attitude towards palliative care than those in state institutions.

The absence of formal training in palliative care and the non-existence of a palliative care approach were found to be significantly associated with unfavorable attitudes towards palliative care. This observation suggests a need for targeted educational programs and institutional policies to integrate palliative care training into nursing curricula and healthcare systems. It's important to note the multidimensional nature of attitudes, which encompasses cognitive, affective, and conative components. While this study focused on cognitive aspects (knowledge and beliefs), future research could explore the affective and conative dimensions to gain a comprehensive understanding of nurses' attitudes towards palliative care.

In a broader context, these findings highlight the importance of organizational support, educational initiatives, and policy interventions in fostering a positive culture of palliative care among nursing professionals. By addressing the identified predictors, healthcare stakeholders can work towards optimizing the delivery of palliative care services and enhancing the quality of end-of-life care for patients in Lubumbashi and beyond.

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