原　著

Analysis of characteristics related to the attitudes of Nursing Students toward terminal care: A comparative study between Sri Lanka and Japan

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Abstract The attitudes of nurses toward caring for dying patients are important in palliative care. There are many factors that can affect nursing students' attitudes toward terminal care, including their religion, as well as knowledge, clinical, and personal experiences related to care of dying patients. In this study, we aimed to identify the characteristics that affected nursing students' attitudes to terminal care and the views of life and death, and to compare student attitudes between universities in Japan and Sri Lanka. The study was carried out among first- and fourth-year nursing students from a university in Sri Lanka (University A) and a university in Japan (University B). Data were collected from 157 nursing students at each university, using the self-administered Frommelt Attitude toward Care of the Dying (FATCOD) scale and the Death Anxiety Scale (DAS). The analysis indicated that the students at University B had higher scores on the FATCOD than students at University A; interestingly, the majority of students at University B were not practicing religion, but those at University A were. Therefore, although students of University B encountered higher death anxiety and avoidance, it did not affect their FATCOD scores. By contrast, students at University A had a clearer view of life and death compared with students at University B. Our results also indicate that knowledge about terminal care could affect attitudes. We conclude that religious belief may alter views about death and dying, but that it does not affect attitudes toward terminal care.

1. Introduction

Palliative care has only recently been introduced to Sri Lanka. However, despite the advanced healthcare system and access to free universal care, there are too few trained professionals to provide all palliative care needs. Palliative care is provided equally to patients who are terminally ill as it is to any patient when the goal is to improve quality of life, but it plays a particularly significant role in the care of dying patients. During terminal care, healthcare professionals must deal with the reality of death and dying on a frequent basis. The attitudes of nurses toward terminal care, their views toward life and death, and the education they receive about palliative care may all be important to this care provision.

In addition, nursing students often provide end-of-life and terminal care for people during clinical placements. Some of these students may have their own personal experiences of terminal care or have their own beliefs about life and death. Consequently, attitudes toward terminal care may vary from student to student, with factors like age, gender, religion, personal experience, and clinical experience all contributing to differences. Here were refer to attitudes as the positive or negative evaluations of people, objects, events, activities, ideas, or anything else surrounding a person[1)]; attitudes to death can also be both positive and negative.

Several studies have already been done to assess the attitudes of nursing students toward terminal care. The findings of this research indicated that most nursing students felt unprepared to deal with issues related to death and care of the dying by the end of their course[2),3),4)]. For example,

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there is considerable literature supporting the use of educational programs to change student nurse's negative attitudes toward terminal care[5),6)]. In a non-randomized population-based study of undergraduate medical, nursing, and allied health students at Manipal University, India, basic knowledge and skills related to palliative care were shown to be inadequate among students[7)]. Equally, personal experience of care for a person close to death, the death of a significant other, or near-death experiences have all been shown to affect the attitudes of student nurses to terminal care. In a comprehensive study of student nurses from southeast Iran, even though the students were from the same province and had similar cultures (50 from Bam and 60 from Kerman), they exhibited differences in their attitudes toward death; moreover, their attitudes influenced how well they related to people during this period[8)]. Similar results have been shown in other research[9)].

In relation to studies carried out among staff nurses, it has been shown that attitudes toward caring for patients who are dying may be influenced by experience, degree of work satisfaction, and degree of support at work[9),7)]. Some related studies have also identified the impact of nurses' religious views, such as belief in supernatural being or an afterlife, on attitudes toward death and caring for people who are dying [10),11)]. Some research suggests that nurses' attitudes to caring for the dying may also influence the quality of the care provided[12)]. Therefore, studies about these attitudes are essential to nursing education research.

The aim of this study was to explore and describe the influences of demographic and other factors on the attitudes of nursing students to caring for patients who are dying, and to ascertain their views about death and dying. Thus, characteristics related to the attitudes of nursing students to terminal care were compared between first- and fourth-year nursing students at universities in Sri Lanka and Japan because these have different cultures, religious, and educational backgrounds. We expected the study results to improve our knowledge of the factors affecting quality of terminal care. For example, it was hoped that our findings might prompt changes in policy, such as the introduction of compulsory palliative care education for nursing students early in training, and that possible managerial changes could positively influence the quality of terminal care.

2. Methods

2.1. Study design

This was a descriptive cross-sectional study.

2.2. Study setting

The study was conducted at universities in Sri Lanka (University A) and Japan (University B). We chose to compare these two universities to observe the differences in attitudes between A developing country (Sri Lanka) and a developed country (Japan). Palliative care is established in Japan, but is still in its infancy in Sri Lanka. In Japan, students learn about terminal care from their first year of study, while those in Sri Lanka only start to learn about it in their final year. But students in Sri Lanka have more clinical exposure to care of terminally ill patients than Japanese students. Therefore, based on these factors, we aimed to explore whether there would be differences in attitude between students in these two countries.

2.3. Study Sample

Study participants were first- and fourth-year undergraduate nursing students from University A in Sri Lanka and University B in Japan. All nursing students were invited to participate, and eventual participants were properly informed about the purpose of the study. From a potential population of 228, a total of 157 students (University A, 40.76%; University B, 59.34%) responded to the questionnaires.

2.3.1. Inclusion Criteria: We included 157 students, if they came from the first and fourth years at University A and University B, after they provided consent.

2.3.2. Exclusion Criteria: We excluded students who did not provide consent, who could not understand English or Japanese, and who did not submit a completed questionnaire.

2.4. Data Collection

The study questionnaire comprised the FATCOD-B/B-J[13), 14)] (Frommelt Attitudes toward care of dying scale), DAS (Death Anxiety Scale), and a section for collection of demographic data. In this study, the FATCOD-B was used at University A and the FATCOD-B-J was used at University B. The demographic data included information about gender, religion, university, year of study, knowledge of palliative

care, and personal experience of palliative care.

2.4.1. The FATCOD-B scale: This scale consists of 30 multiple-choice questions, and it measures attitudes toward caring for dying patients via an equal number of positively and negatively worded statements. Positive items are scored one (strongly disagree) to five (strongly agree), and the scores are reversed for negative items. Possible scores can range from 30 to 150, with higher scores indicating a more positive attitude. The FATCOD is both valid and reliable as a tool for measuring attitudes to care of the dying. Frommelt (1991), originally calculated the content validity index to be 1.00, with an inter-rater agreement of 0.98 (using an expert panel). Reliability was established by Frommelt by performing a test–retest procedure twice, with Pearson product-moment correlation coefficients (r) of 0.94 and 0.90.

2.4.2. The FATCOD-B-J scale: The Japanese version of the FATCOD-B was translated using standard back translation, and its reliability and validity have been shown.

2.4.3. The DAS: The DAS assesses views on life and death and comprises 27 items under the following: Factor 1, Afterlife Belief; Factor 2, Death Anxiety; Factor 3, Death Relief; Factor 4, Death Avoidance; Factor 5, Life Purpose; Factor 6, Death Concern; and Factor 7, Supernatural Belief. All items allow for one of seven responses: agree, agree moderately, agree slightly, neither agree nor disagree, disagree slightly, disagree moderately, and disagree. Therefore, possible scores can range from 27 to 189, with a higher score indicating a more positive attitude. The reliability and validity of the Japanese version of this tool have been reported. The DAS was translated into English, and the English version reviewed among the researchers.

2.5. Data Collection

After gaining permission from the ethics committees of both universities, nursing students were approached and invited to participate. All students were informed that participation was voluntary and were given information about the purpose and procedure of the study. The self-rating questionnaire was then provided and students were asked to return it within a certain period that took into account their schedule.

2.6. Data Analysis

Descriptive statistics were used to summarize the demographic data. Comparison was made between the two universities in terms of religion, personal experience of death, personal experience of care for dying patients, awareness of students regarding the term "palliative care," clinical experience of terminal care, and previous education about death and dying. The data obtained from the questionnaire were analyzed using IBM SPSS for Windows, Version 22.0 (IBM Corp., Armonk, NY, USA). The average total scores for all domains, the average total scores for each of the three FATCOD-B/B-J domains, and the average total scores for each of the seven DAS factors were obtained separately for first- and fourth-year students at both universities, and then compared between the two countries. A P-value < 0.05 was considered statistically significant. The correlation coefficient between the FATCOD-B/B-J scale and the DAS was also calculated.

2.7. Ethical Considerations

This study was conducted after obtaining approval from the ethical review committees of University A and University B, and was performed in accordance with the Ethical Guideline for Nursing Researchers produced by the International Nurses Association.

3. Results

Out of the 157 nursing students included in this study, 64 (40.8%) were from University A (Sri Lanka) and 93 (59.2%) were from University B (Japan), with 25 (15.9%) males and 132 (84.1%) females included. Students practiced various religions, with the most common being Buddhism (56.1%), Hinduism (3.8%), Islam (3.2%), Christianity (3.2%), and Shintoism (1.3%). Most participants reported having a religion (110; 70.1%), but 47 (29.9%) reported having no religion. All students who reported not having religion were from University B, while all those from University A had a religion.

Concerning personal experience of death and dying, most students had experience of a family member's death or of a pet's death, with 87 (55.4%) and 58 (36.9%) nurses, respectively. In addition, 11 students (7.0%) had experienced the death of a close friend. However, 33 (21.0%) had no personal experience of death. When comparing familiarity

with the term palliative care, 94.6% of the students from University B were aware, but only 76.6% from University A were aware of the term. Concerning clinical experience of caring for patients who are dying, students from University A (35; 54.7%) had more clinical experience than those of University B (16; 17.2%). Thus, although students of University B were more familiar with the term palliative care, those of University A had more clinical experience.

The questionnaire was also used to obtain information about whether the students had seen healthcare professionals providing care for dying patients during their clinical placements; again, more students (35; 54.7%) from University A had observed palliative care compared with those from University B (16; 17.2%). In addition, a higher percentage of students from University A (38; 59.4%) had knowledge of terminal care through academic course content, while many others (18; 28.1%) had knowledge through their religion. By contrast, only 4 students (4.3%) at University B had gained knowledge through religion, and 32 (34.3%) had knowledge through academic course content. However, there were no significant differences between first- and fourth-year students at both universities in the total FATCOD-B scores, which were 109.52 and 112.80, respectively (P = 0.624). Therefore, year of study was

Table 1. Comparison of the two universities

	Total Number (Both AU & BU)		A Univ. Sri Lanka (n=64)		B Univ. Japan (n=93)		
	n	%	n	%	n	%	p value
school year							
1th year	67	42.7	29	45.3	38	40.9	0.624
4th year	90	57.3	35	54.7	55	59.1	
Religion							
None	47	29.9	0	0.0	47	50.5	<0.001**
Yes	110	70.1	64	100.0	46	49.5	
Buddhist	*88*	*56.1*	*52*	*81.2*	*36*	*38.7*	
Hindu	*6*	*3.8*	*6*	*9.4*	*0*	*0.0*	
Islam	*5*	*3.2*	*5*	*7.8*	*0*	*0.0*	
Christianity	*5*	*3.2*	*1*	*1.6*	*4*	*4.3*	
Shinto	*2*	*1.3*	*0*	*0.0*	*2*	*2.2*	
Others	*4*	*2.5*	*0*	*0.0*	*4*	*4.3*	
Education related to Terminal Care							
Learn through academic curriculum	70	44.6	38	59.4	32	34.4	
Follow a specific course	47	29.9	2	3.1	45	48.4	
Have knowledge through the religion	22	14.0	18	28.1	4	4.3	
Not studied yet	18	11.5	6	9.4	12	12.9	
Awareness regarding the term "palliative care"							
Yes	137	87.3	49	76.6	88	94.6	0.001**
No	20	12.7	15	23.4	5	5.4	
Having clinical experience on caring for dying patient							
Yes	51	32.5	35	54.7	16	17.2	<0.001**
No	106	67.5	29	45.3	77	82.8	
Personal experience relater to Death & Dying							
No such experience	33	21.0	23	35.9	10	10.8	<0.01**
Yes	124	79.0	41	64.1	83	89.2	
＊ Family member die	*87*	*55.4*	*29*	*45.3*	*58*	*62.4*	
＊ Close friend die	*11*	*7.0*	*6*	*9.4*	*5*	*5.4*	
＊ Pet die	*58*	*36.9*	*21*	*32.8*	*37*	*39.8*	

＊multiple ansers　　Pearson's Chi-squared test, Fisher's exact test **p<0.05

Table 2. Comparison of the results of the Frommelt Attitudes Toward Care of the Dying Scale between the two universities

	A Univ. Sri Lanka		B Univ. Japan		P value
	mean	SD	mean	SD	
FATCOD Total	107.59	10.37	115.08	9.74	< 0.001*
FATCOD Factor1	53.40	6.07	57.18	6.36	< 0.001*
FATCOD Factor2	50.33	7.30	54.13	5.36	< 0.001*
FATCOD Factor3	3.86	1.02	3.76	0.81	0.514

*p<0.05

Factor 1.Perspective related to positive attitudes toward care for dying patient

Factor 2.Recognition of care centered on the patient and their families

Factor 3.Perspective related to Death

Table 3. Comparison of the Death Anxiety Scale results between the two universities

	A Univ. Sri Lanka		B Univ. Japan		P value
	mean	SD	mean	SD	
Factor 1 After life belief	19.41	7.03	17.30	4.77	0.027*
Factor 2 Death anxiety	15.94	8.51	19.09	6.49	0.009*
Factor 3 Death relief	15.78	7.25	12.49	5.34	<0.001*
Factor 4 Death avoidanc	12.89	6.58	11.26	4.84	0.075
Factor 5 Life purpose	21.27	5.68	16.68	4.68	<0.001*
Factor 6 Death concern	14.03	7.26	15.16	5.23	0.259
Factor 7 Supernatural b	10.94	4.60	10.42	4.47	0.482

*p<0.05

excluded as a factor that could affect attitudes toward terminal care (Table 1).

The results for the FATCOD-B/B-J are summarized in Table 2. Students at University B achieved the higher total FATCOD-B/B-J scores of the two universities ($p < 0.001$ by t-test). Also, the scores for the positive attitudes to care of dying patients (Table 2, factor 1) and recognition of the need for patient- and family-centered care (Table 2, factor 2) were significantly higher for students from University B than for those from University A ($p < 0.001$). However, there was no significant difference between the two universities in response to the question related to death (Table 2, factor 3) ($p = 0.514$).

Concerning the DAS, students from University A got higher scores for factors 1, 3, 4, 5, and 7, while those from University B got higher scores for factors 2 and 6 (Table 3). However, only factors 1, 2, 3, and 5 were significant at the $p < 0.05$ level. Thus, for belief in an afterlife (factor 1) and for viewing death as a relief (factor 3), students from University A scored higher than students from University B. For death anxiety (factor 2), however, students from University B had greater anxiety than students from University A. Finally, concerning students' views of life (factor 5), students from University A had clearer life views than those from University B. Though differences were present for factors 4 ($p = 0.075$), 6 ($P = 0.259$), and 7 ($P = 0.482$), none of the results was statistically significant. The results indicated that students who had higher death anxiety were more likely to avoid thinking about death, and that this had a negative correlation with life purpose. Finally, there was a positive

correlation between students who believed in an afterlife and factors 5, 6, and 7 (Table 3).

4. Discussion

In this study, we revealed that nursing students' attitudes toward death and dying were different for nursing students in University A (Sri Lanka) and University B (Japan). The FATCOD-B/B-J scale and DAS results provide important information about the attitudes toward caring for dying patients, and about the views and beliefs concerning death and dying held by students in each country. We showed that there were significant differences in the FATCOD-B/B-J scores, with students from Japan scoring higher than those from Sri Lanka, because a higher percent of the former had personal experience of death and dying.

Although students from Sri Lanka scored less well on the FATCOD-B/B-J scale, they scored significantly higher for factors 1, 3, and 5 in the DAS. This was considered to be due to the greater numbers with religious beliefs in Sri Lanka, and, therefore, belief in an afterlife. Most students from Sri Lanka were Buddhists, so these students perhaps unsurprisingly scored more highly on factor 1 in the DAS, which was related to belief in an afterlife. By contrast, most of the Japanese students were not religious. The basic view toward death and dying is broadly the same in all religions, with evidence of a relationship between religion and beliefs about the death and dying[15]. This accounts for the fact that students with a religion scored more positively on the death and dying scale. Not only did they have less anxiety about death but they also had higher scores for life purpose. Death anxiety is a unique characteristic of humans, because we are the only creatures known to have the capacity to contemplate our own death. When somebody experiences fear, a common initial reaction is to attempt to avoid the trigger; for example, students with higher death anxiety usually try to avoid thinking about death. However, students from Sri Lanka scored higher on factor 5 of the DAS (life purpose), with their religion possibly giving purpose and meaning to life and death.

When comparing familiarity with the term palliative care, most of the students from Japan (88; 94.6%), but fewer from Sri Lanka (49; 76.6%), were aware of the term. Previous studies using the FATCOD-B/B-J have indicated that students who were educated about palliative care had more positive attitudes about terminal care than students who were not educated[16),17),18)]. This may explain why students from Japan got higher scores on the FATCOD-B/B-J. When compared with research using the FATCOD-B/B-J scale among nursing students in other countries, the total mean score in this study was low[19),20)]. Studies conducted among American, Swedish, and Italian nursing students produced total mean values of 123.7 ± 11.43 ($n = 59$)[19)], 125.5 ± 8.2 ($N = 100$)[21)], and 115.20 ± 7.86 ($n = 82$)[22)], respectively. But this scale is highly subjective, and these were only the mean scores. The fact that America and Sweden both produced significantly higher scores may indicate that these are both more liberal than either Japan or Sri Lanka with respect to patient choice.

Overall, students from Japan got higher scores for the FATCOD-B/B-J compared with students from Sri Lanka. Given that most students from Japan were not practicing religion, these students encountered higher levels of death anxiety and death avoidance in comparison with the more religious students from Sri Lanka. Nevertheless, this did not affect their FATCOD-B/B-J scores. By contrast, the students from Sri Lanka appeared to have a much clearer view of life and death than students from Japan. Thus, we conclude that religious beliefs contribute to the difference in views toward death and dying, but do not affect attitudes toward terminal care. The results also indicate that knowledge about terminal care could affect a student's attitude.

5. Conclusion

Religious beliefs appear to contribute to views about death and dying, but do not lead to changing attitudes toward terminal care. Students from Japan had more positive attitudes toward terminal care than those from Sri Lanka, but students from Sri Lanka scored higher on the DAS. Thus, differences in attitude could result from differences in education about palliative care, religious beliefs, or both.

6. Limitation of the Study

This was a cross-sectional observational study, so we cannot draw causal conclusions because the data only describe the characteristics of the groups. Also, few male students participated, and the study was carried out in only one university each in Sri Lanka and Japan. Finally, we

should consider that there may have been differences between true attitudes and stated attitudes.

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References

1. Wikipedia, Available on: [http://en.wikipedia.org/wiki/Attitude_(psychology)]
Accessed on July 06, 2016.
2. Gillan PC, van der Riet PJ, Jeong S. End of life care education, past and present: a review of the literature. Nurse Educ Today. 2014; 34(3): 331-342.
3. Gibbons C, Dempster M, Moutray M. Stress, coping and satisfaction in nursing students. J Adv Nurs. 2011; 67(3): 621-632.
4. Wallace M, Grossman S, Campbell S, et al. Integration of end-of-life care content in undergraduate nursing curricula: student knowledge and perceptions. J Prof Nurs. 2009; 25(1): 50-56.
5. Iranmanesh S, Savenstedt S, Abbaszadeh A. Student nurses' attitudes towards death and dying in South-east Iran. Int J Palliat Nurs. 2008; 14(5): 214-219.
6. Mallory JL. The Impact of a palliative care educational component on attitudes toward care of the dying in undergraduate Nursing students. J Prof Nurs. 2003; 19(5): 305-312.
7. Sakshi S, Naveen S, Asha K. Palliative Care Awareness among Indian Undergraduate Health Care Students: A Needs-Assessment Study to Determine Incorporation of Palliative Care Education in Undergraduate Medical, Nursing and Allied Health Education. Indian J Palliat Care. 2010; 16(3): 154-159.
8. Mohammad O, Abu H., Shalabia A, et al. Nurses' characteristics and their Attitudes toward Death and Caring for Dying Patients in a Public Hospital in Jordan. Health Sci.J. 2013;7: 384-394.
9. Freda de kock. Factors influencing nurses' attitudes towards caring for dying patients in oncology settings in the Western Cape Metropole. The master's thesis at the University of Stellenbosch.2011. Available on 〔file:///C:/Users/sakai/Downloads/dekock_factors_2011%20(1).pdf〕 Accessed on 07/06/2016.
10. Rooda LA, Clements R, Jordan ML. Nurses' attitudes toward death and caring for dying patients. Oncol Nurs Forum.1999;26(10): 1683-7.
11. Lundmark M. Attitudes to spiritual care among nursing staff in a Swedish oncology clinic. J Clin Nurs.2006;15(7): 863-874.
12. Peters L, Cant R, Payne S. et al. How death anxiety impact nurses' caring for patients at the end of life: a review of literature. Open Nurs J. 2013; 7: 14-21.
13. Nakai Y, Miyashita M, Sasahara T, et al. Factor Structure and Reliability of the Japanese Version of the Frommelt attitudes toward care of the dying scale (FATCOD-BJ). Jpn J Cancer Nurs. 2006; 11 (6): 723-9(in Japanese).
14. Frommelt KH. Attitudes toward care of the terminally ill. an educational intervention Am J Hosp Palliat Care 2003; 20(1): 13-22.
15. Derek P. A Model of Religion and Death. Available on〔http://www.ugr.es/~teoriahe/RePEc/gra/paoner/per08_06.pdf〕 Accessed on 07/06/2016.
16. Mallory J.L. The impact of a palliative care educational component on attitudes toward care of the dying in undergraduate nursing Students. J Prof Nurs. 2003; 19(5): 305-312.
17. Mok E, Lee WM, Wong FK. The issue of death and dying: employing problem-based learning in nursing education. Nurse Educ Today. 2002; 22(4): 319-329
18. Hurtig WA., Stewin L. The effect of death education and experience on nursing students' attitude towards death. J Adv Nurs.1990; 15(1): 29-34.
19. Kwekkeboom KL, Vahl C, Eland J. Companionship and education: a nursing student experience in palliative care. J Nurs Educ. 2005.44(4): 169-176.
20. Henoch I, Browall M, Melin-Johansson C, et al. The Swedish Version of the Frommelt Attitude Toward Care of the Dying scale: aspects of validity and factors influencing nurses' and nursing students' attitudes.Cancer Nurs. 2014; 37(1): 1-11.
21. Mastroianni C, Piredda M, Frommelt K.H.M, et al. Italian validation of the Froomelt Attitudes Toward Care of the Dying Scale Form B (FATCOD Form B-I). Int Nurs Perspect. 2009; 9(1): 11-16.
22. Paolo L, Marco M, Andrea B, et al. Attitudes towards caring for dying patient. J Nurs Educ Pract. . 2014; 4(3): 188-196.