

2016-07

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<http://hdl.handle.net/10026.1/10922>

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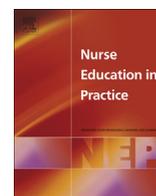
10.1016/j.nepr.2016.03.009

NURSE EDUCATION IN PRACTICE

Elsevier BV

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## Clinical education

## Influence of the type of patient in the emotional response of nurses and nursing students

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## ARTICLE INFO

## Article history:

Received 30 January 2015

Received in revised form

18 February 2016

Accepted 25 March 2016

## Keywords:

Perspective taking

Personal distress

Nurses

Nursing students

Type of patient

## ABSTRACT

Nurses are playing a vital role in caring for patients. However, this can be very emotionally taxing. In two studies, professional nurses and nursing students from two different countries (Spain and United States) were compared on different measures—objective and self-perspective-taking, personal distress, and emotional impact—when facing different types of patients who suffered from the same illness: One terminally ill and one non-terminal. Results showed that the type of patient (terminal vs. non-terminal) only affected significantly the nursing students, who reported a higher self-perspective taking, personal distress, and emotional impact when the patient was terminal. Nursing students, compared to professional ones, seem to be more vulnerable to the type of patient they care for as they exhibited higher levels of negative emotional experience when the patient described was terminal. The significant implications are discussed.

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## 1. Introduction

One of the key roles of nurses is to provide care to patients. Providing care and support, however, can be highly stressful (Schulz et al., 1997), especially when providing end of life care (Edo-Gual et al., 2014). Dealing with others' suffering on a daily basis may undermine professional's and students' well-being and may lead to compassion fatigue (Figley, 1995). Compassion fatigue is defined as the reduced capacity of, or interest in, being empathic or bearing the suffering of others (Figley, 1995). Compassion fatigue is characterized as an extreme form of distress which is likely to affect nursing professionals' and students' well-being, job satisfaction, and willingness to remain in the nursing profession (Kalliath and Morris, 2002). It may also lead to clinical errors and poor treatment planning (Bride et al., 2007).

## 1.1. Emotional impact of providing care in nursing professionals and students

Previous research has shown that nursing students are more likely to experience compassion fatigue, distress, and its

consequences compared to professional nurses (e.g., Laschinger et al., 2009). Thus, nursing students might be more likely to suffer emotional exhaustion, especially in an unsupportive environment (Cho et al., 2006; Kanai-Pak et al., 2008).

Nursing professional and students are often engaged with the suffering of others. They often deal, likewise, with terminally-ill patients and death (e.g., Gray, 2009). Nursing students will likely encounter terminal patients for their first time during their placements, which is considered as one of their main stressors (e.g., Burnard et al., 2008). However, research has shown that dealing with death is not only difficult for nursing students but also for professionals (e.g., Mallory, 2003). Despite that, nursing professionals, compared to students, who have dealt with a dying patient, reported that their skills improved as a result of the experience (Huang et al., 2010).

Learning about palliative care is an important part of the basic training for health professionals (Ballesteros et al., 2014). In the USA it has been incorporated as part of the basic training (Dickinson, 2007); in Spain, in contrast, it is not a mandatory module in all nursing schools (Valles and García, 2013). Despite the fact that palliative care is part of the nursing curriculum, nursing students still encounter difficulties when dealing with death (Edo-Gual et al., 2014). For example, Kent et al. (2012) found that nursing students may exhibit ruminative thinking after being exposed to terminally ill patients. Furthermore, nursing students also prefer to minimize

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contact with terminally-ill patients in order to reduce its emotional impact (Mutto et al., 2010). Thus, it is important to study further nursing students' emotional responses when facing dying patients, to better understand the variables that may underlie such reactions as they can be targeted in palliative care training.

### 1.2. Perspective-taking and personal distress in nursing professionals and students

Why nursing professionals are not adversely affected when managing terminally-ill patients, whereas nursing students are? Psychological research has shown that when perceiving others in need people may experience two qualitatively different emotional reactions, with distinct behavioral consequences (Batson, 2011). First, a person may experience empathic concern, which entails care and concern for the other and it is related to providing help (Batson, 2011; Davis, 1996). Secondly, one may experience personal distress, which entails an aversive emotional reaction (e.g., anxiety), associated with avoidance and withdrawal from the situation (Davis, 1983; Decety and Lamm, 2006; Eisenberg and Eggum, 2009). Thus, nursing students, compared to nursing professionals, may experience higher personal distress when providing care, especially in cases which involved terminally-ill patients.

Feeling personal distress may be associated with the type of perspective-taking adopted. Perspective-taking refers to the process that determines how one individual comes to understand others' thoughts and feelings (see Hoffman, 2008). Within perspective-taking a further distinction has been made, separating *objective perspective* (i.e., remaining detached and not emotionally involved), and *self-perspective* (i.e., imagining one-self in the other's situation). These types of perspective taking strategies may have different emotional consequences, as objective perspective tends to minimize feelings of emotional distress, whereas self-perspective tends to produce high levels of personal distress (see Batson et al., 1997).

It is feasible, therefore, that nursing students will rely on self-perspective taking when dealing with patients, whereas nursing professionals will use an objective perspective taking approach. Previous research supports this idea, showing that professional nurses scored higher in objective perspective taking compared to students, and the latter reported higher levels of empathic concern and personal distress (López-Pérez et al., 2013). These results suggest that professional nurses "learn" to adopt a healthier perspective taking, whereas nursing students are likely to be emotionally drained. That being said, we have little data on whether the type of perspective taking and the emotional reaction differ between the two groups when exposed to terminally-ill vs. recovering patients.

Based on the review above, a number of hypotheses were developed. It was predicted that only nursing students would be affected by the type of patient confronted (terminal vs. non-terminal); that professional nurses would score higher on objective perspective taking, whereas nursing students would score higher on self-perspective taking; that nursing students facing a terminal patient would exhibit lower objective perspective taking and higher self-perspective taking; that professional nurses would exhibit lower personal distress compared to nursing students. Finally, it was expected that professional nurses would experience reduced emotional impact compared to the nursing students.

## 2. Method

### 2.1. Participants

Sixty participants took part in this study (30 nursing students and 30 professional nurses). Nursing students were aged between

18 and 45 years ( $M = 21.15, SD = 5.19$ ), and all were in their first to fourth year of study ( $M = 2.10, SD = 1.24$ ). Participants were recruited from two different nursing schools in Spain. Professional nurses were between 25 and 56 years of age ( $M = 37.12, SD = 9.72$ ), with an average experience in the nursing field for 14 years (63% worked in the oncology department, 35% worked in the obstetrics department, and 2% worked in the cardiology department). They were recruited from two different hospitals in Spain.

### 2.2. Procedure

Prior to data collection ethical approval was obtained from the appropriate institutional review boards. Before testing, materials were assembled to ensure that the researchers conducting the study were blind to the experimental condition. Participants were informed about the purpose of the study and thereafter provided consent to take part in the study.

The main manipulation was the type of patient (terminal vs. non-terminal) presented. In both conditions (terminal vs. non-terminal) the same picture of a sick man in hospital was presented. Together with the picture, participants were given information about the condition of the sick man (terminal vs. non-terminal) (see, López-Pérez et al., 2013).

After reading either scenario, participants were asked to answer a range of questions. First, two questions were designed to evaluate the extent to which participants remained objective (i.e., "I tend to remain objective and not emotionally involved") and imagined themselves in the patient situation ("I tend to imagine myself in that situation"). Rating was provided on a 7-point Likert Scale ranging from 1 = Not at all, to 7 = Completely. After reading the story about the sick man, participants were asked the degree—on a 7-point Likert type scale ranging from 1 = Not at all, to 7 = Completely—to which they experience a number of emotions (sorrow, distressed, heavy hearted, alarmed, and anxious). Finally, participants answered two questions designed to measure the emotional impact they would experience if they were asked to look after a patient similar to the one described in the scenario ("If I had to look after a patient like James, my personal life would be affected" and "If I had to look after a patient like James I would feel distressed"). Upon finishing answering the questionnaires, participants were debriefed.

## 3. Results and discussion

### 3.1. Perspective taking strategies

We conducted a multivariate analysis for each perspective taking strategy. For objective perspective taking, there was a significant effect of role  $F(1, 56) = 10.48, p = 0.002$ , such that professional nurses reported higher ability to maintain an objective perspective ( $M = 4.50$ ) compared to nursing students ( $M = 3.43$ ). There were no significant effects for the type of patient or the interaction,  $F_s(1, 56) < 0.65, p > 0.42$ . For self-oriented perspective taking, there were significant effects for role and the interaction ( $F(1, 56) = 20.00, p = 0.0001; F(1, 56) = 4.58, p = 0.037$ , respectively). Nursing students ( $M = 4.77$ ) reported higher self-oriented perspective taking compared to professional nurses ( $M = 2.87$ ). Post-hoc analyses revealed a significant pattern 1 vs. 3, such that nursing students in the terminal condition reported higher self-oriented perspective taking ( $M = 5.20$ ) compared to nursing students in the non-terminal patient condition,  $t(56) = 3.90, p = 0.0001$  (see Table 1). We also tested for both, students and professional nurses, whether the academic year and years of experience (respectively) may predict the type of perspective taking adopted. Results showed that academic year did

**Table 1**  
Perspective taking by condition.

		Objective perspective		Self-oriented perspective	
		Terminal condition	Non-terminal condition	Terminal condition	Non-terminal condition
Study 1	Nursing students	3.20	3.67	5.20	4.33
	Professional nurses	4.47	4.53	2.40	3.33
Study 2	Nursing students	3.71	3.81	5.43	5.5
	Professional nurses	4.47	3.40	4.47	4.60

not influence students' self-perspective taking ( $F(3, 52) = 0.23$ ,  $p = 0.88$ ) and objective perspective-taking ( $F(1, 56) = 1.52$ ,  $p = 0.34$ ). Regarding years of working experience, results showed that whereas it did not predict nurses' self-perspective taking ( $\beta = -0.33$ ,  $t = -1.88$ ,  $p = 0.07$ ), it did predict nurses' objective perspective taking ( $\beta = 0.41$ ,  $t = 2.39$ ,  $p = 0.02$ ). Thus, nurses with more years of working experience tend to adopt a more objective perspective taking.

### 3.2. Situational personal distress

The scale was formed by the weighted sum of the terms: *sorrow*, *distressed*, *heavy hearted*, *alarmed*, and *anxious*;  $\alpha = 0.86$ . A multivariate analysis showed a main effect of role,  $F(1, 56) = 13.87$ ,  $p = 0.0001$ . Post-hoc analyses revealed a significant pattern 1 vs. 3, such that nursing students in the terminal patient condition ( $M = 4.33$ ) reported higher personal distress compared to those in the non-terminal patient condition,  $t(56) = 3.85$ ,  $p = 0.0001$  (see Table 2). Academic year did not impact students' levels of personal distress ( $F(3, 52) = 0.45$ ,  $p = 0.71$ ). Regarding years of experience, results showed that it was not a positive predictor of nursing professionals' personal distress ( $\beta = -0.22$ ,  $t = -1.21$ ,  $p = 0.24$ ).

### 3.3. Emotional impact

For the items "If I had to look after a patient like James, my personal life would be affected" and "If I had to look after a patient like James I would feel distressed" a post-hoc analysis revealed a significant pattern 1 vs. 3, such that nursing students in the terminal patient condition provided a significantly higher rating of emotional distress compared to those in the non-terminal patient condition,  $t(56) = 6.2$ ,  $p = 0.0001$ ,  $t(56) = 2.17$ ,  $p = 0.034$ , and  $t(56) = 3.99$ ,  $p = 0.0001$ , respectively (see Table 3). Students' academic year did not influence the emotional impact ( $F(3, 52) = 2.26$ ,  $p = 0.09$ ). However, years of experience was a significant predictor of nurses' emotional impact ( $\beta = -0.48$ ,  $t = -2.95$ ,  $p = 0.01$ ). Thus, professional nurses with more years of experience tend to be less emotionally impacted when exposed to patients.

## 4. Study 2

Results of study 1 revealed that Spanish nursing students were more vulnerable to the type of patient they may encounter when providing care. Namely, nursing students showed higher self-oriented perspective taking, personal distress, and emotional

**Table 2**  
Situational personal distress.

		Terminal condition	Non-terminal condition
Study 1	Nursing students	4.33	3.40
	Professional nurses	2.72	2.65
Study 2	Nursing students	4.06	3.29
	Professional nurses	2.94	2.88

impact when the patient was terminal. However, no differences were found between conditions among the professional nurses. Nonetheless, our data did show that years of experience was a significant predictor of professional nurses' objective perspective taking and emotional impact. Thus, more experienced professional nurses tend to use more objective perspective taking strategies and tend to be less emotionally impacted. The goal of Study 2 was to assess the generalizability of the results from Study 1 with a North American sample. We decided to include a North American sample for the comparison in this study, as American nursing students, unlike their Spanish counterparts, all receive training in palliative care (Ballesteros et al., 2014). Thus, it is possible that American students may be less affected than Spanish nursing students when exposed to terminally ill patient (see López-Pérez et al., 2013).

## 5. Method

### 5.1. Participants

The sample consisted of 60 participants: 30 nursing student and 30 professional nurses. Nursing students were recruited from the College of Nursing at a major Southwestern university. The sample was mostly comprised of white/European American females ages 19–28 ( $M = 22.35$ ,  $SD = 3.69$ ) all were in their first to fourth year of study ( $M = 2.27$ ,  $SD = 1.23$ ). Professional nurses were randomly selected from a large hospital in the Southwestern part of the USA. The sample was mostly comprised of white/European American females ages 25–62 ( $M = 38.05$ ,  $SD = 14.32$ ) (54% worked in the oncology department, 26% in the obstetrics department, and 20% in the cardiology department).

#### 5.1.1. Procedure

The materials and the procedure were identical to those used in Study 1.

## 6. Results and discussion

### 6.1. Perspective taking measure

For objective perspective taking, a multivariate ANOVA showed non-significant effects for the main variables and the interaction. Post-hoc analyses revealed a significant pattern 1 vs. 3, such that when facing a terminal patient, professional nurses rated higher on objective perspective compared to nursing students ( $M = 4.47$ );  $t(56) = 1.95$ ;  $p = 0.05$ . For self-oriented perspective taking, there was a main effect of role ( $F(1, 3) = 5.73$ ,  $p = 0.02$ ). Nursing students ( $M = 5.47$ ) scored higher on self-oriented perspective taking compared to the professional nurses ( $M = 4.53$ );  $t(58) = 2.44$ ,  $p < 0.02$  (see Table 1). Academic year did not impact students' levels of objective ( $F(3, 52) = 0.21$ ,  $p = 0.89$ ) and self-perspective taking ( $F(3, 52) = 0.35$ ,  $p = 0.75$ ). Regarding years of experience, results showed that it was not a positive predictor of nursing professionals' self-perspective taking ( $\beta = 0.07$ ,  $t = 0.36$ ,  $p = 0.72$ ) but it was a significant predictor of objective perspective taking ( $\beta = 0.48$ ,

**Table 3**  
Emotional impact measures.

		My personal life would be affected		I would feel distressed	
		Terminal condition	Non-terminal condition	Terminal condition	Non-terminal condition
Study 1	Nursing students	4.36	2.93	4.21	2.73
	Professional nurses	2.40	2.27	1.87	2.40
Study 2	Nursing students	3.07	3.06	3.43	2.94
	Professional nurses	2.13	2.13	2.13	1.87

$t = 2.87, p = 0.008$ ). Thus, more experienced professional nurses tend to use more an objective perspective taking strategy.

### 6.2. Situational personal distress

The scale was formed by the weighted terms: *sorrow, distressed, heavy hearted, alarmed, and anxious*;  $\alpha = 0.86$ . A multivariate ANOVA showed a main effect of role, ( $F(1, 56) = 4.50, p < 0.04$ ). Nursing students reported higher personal distress ( $M = 3.72$ ) than professional nurses ( $M = 2.89$ ). Post-hoc analyses revealed a significant 1 vs. 3 pattern which showed that nursing students in the terminal patient condition ( $M = 4.17$ ) reported higher personal distress than the other conditions,  $t(58) = 2.05, p < 0.04$  (see Table 2). Academic year did not impact students' levels of personal distress ( $F(3, 52) = 0.48, p = 0.69$ ). Regarding years of experience, results showed that it was not a positive predictor of nursing professionals' personal distress ( $\beta = -0.14, t = -0.77, p = 0.45$ ).

### 6.3. Emotional impact

A multivariate ANOVA showed a main effect of role in both items (*If I had to look after a patient like James, my personal life would be affected*; *If I had to look after a patient like James, I would feel distressed*);  $F(1, 56) = 9.90, p < 0.003$ ;  $F(1, 56) = 12.77, p < 0.02$ , respectively. Nursing students ( $M_s = 3.17; 3.07$ ) were significantly more likely to indicate that their life would be emotionally affected compare to the professional nurses ( $M_s = 2; 2.13$ );  $t(58) = 3.54, p < 0.001$ , respectively. Post-hoc analyses revealed a significant pattern which showed that the nursing students in the terminal patient condition also indicted a higher probability of experiencing negative emotions compared to the non-terminal condition ( $t(55) = 3.15; p = 0.003$ ;  $t(56) = 2.85; p = 0.006$ , respectively). Students' academic year did not influence students' reports of emotional impact ( $F(3, 52) = 2.10, p = 0.13$ ). However, years of experience was a significant predictor of nurses' emotional impact ( $\beta = -0.39, t = -2.24, p = 0.03$ ). Thus, professional nurses with more years of experience tend to be less emotionally impacted when exposed to patients.

### 6.4. Test of possible differences by country and by palliative care training

Given that all American nursing students received training on palliative care (pc, onwards), compared to the 57.6% of the Spanish sample, we examined whether there were differences by country for all the variables. A multivariate ANOVA showed no differences between American and Spanish nursing students in their levels of personal distress ( $F(1, 58) = 0.49, p = 0.48$ ), objective-perspective taking ( $F(1, 58) = 1.04, p = 0.31$ ), self-perspective taking ( $F(1, 58) = 2.31, p = 0.13$ ), and emotional impact ( $F(1, 58) = 0.12, p = 0.73$ ). Furthermore, we also explored whether there were differences between those who received pc training and those who did not in Spain. Results showed there were no significant differences between both groups for personal distress ( $t(28) = 0.29,$

$p = 0.77$ ), objective-perspective taking ( $t(28) = -1.49, p = 0.15$ ), self-perspective taking ( $t(28) = 0.77, p = 0.45$ ), and emotional impact ( $t(28) = 0.69, p = 0.50$ ).

## 7. General discussion

Nurses are playing an important and increasing role in providing care to both terminal and non-terminal patients, as they tend to spend more time with patients (Barrere et al., 2008). Part of this role involves dealing with the suffering of others. Different studies (Bride et al., 2007; Schulz et al., 1997) have shown that dealing with the suffering of others could result in emotional exhaustion, errors in clinical judgments, and even leaving one's job. Previous research (Cho et al., 2006; Kanai-Pak et al., 2008) has also argued that nursing students are more vulnerable than professional nurses. In light of previous work, the present investigation compared professional nurses and nursing students' perspective-taking strategies, personal distress, and emotional impact when facing two different types of patients (i.e., terminal vs. non-terminal).

Regarding perspective taking, the results of Studies 1 and 2 (Spain and USA) showed similar patterns: professional nurses were able to remain objective regardless of the patient they cared for, whereas nursing students were more prone to adopt a self-perspective taking. These results are in line with previous research (López-Pérez et al., 2013) revealing that professional nurses tend to remain more objective. Moreover, the terminal patient had a negative effect on both the Spanish and American nursing students, who reported higher levels of self-perspective taking, personal distress, and emotional impact compared to students in the non-terminal patient condition. These results provide further support for earlier findings (Mutto et al., 2010), indicating that distressed nursing students experience higher levels of negative emotional and behavioral outcomes.

Although academic year did not influence students' reports, the number of working years did impact professional nurses' reports of objective perspective and emotional impact. Thus, professional nurses with more years of experience tended to remain more objective and experience less emotional impacted. Overall, the results suggest that professional nurses learn to stay detached and objective in their work environment, whereas nursing students are more likely to be negatively affected by the type of patient they care for. These findings are in line with literature on burnout among nurses as they have shown that experience was negatively associated with burnout or distress (Rudman and Gustavsson, 2011). Finally, there were no differences between North American and Spanish students in their emotional response and their perspective taking strategies. Although all American students received training in palliative care compared to 57.6% of Spanish students in our research, the data implies that palliative care training may not be sufficient to help students cope efficiently when dealing with terminal patients.

### 7.1. Limitations

A number of limitations should be acknowledged. First, professional nurses might simply get used to working with terminal patients and thus more easily accommodate others' suffering. Our study was also prospective rather than longitudinal, which does not allow us to make strong causal claims. A longitudinal study would be better able to tease apart the factors leading to better perspective taking and improved emotional reactions. Our sample, in addition, was rather small, therefore, we were unable to examine whether professional nurses from different disciplines would assume a different perspective taking or experience different emotional reactions. Indeed, most of the professional nurses were working in the oncology department and thus might be more accustomed to caring for terminally ill patients. Further, our data does not allow us to generalize to nurses from other countries. Finally, future studies should consider using other vicarious emotions and perspective taking measures such as the Interpersonal Reactivity Index (IRI, Davis, 1980).

### 7.2. Future research

Future research will need to examine whether the present and past results are driven by other possible factors. For example, self-efficacy beliefs have been found to be relevant for nurses when caring for critically ill patients (Stump et al., 2012) and therefore, it may be an important moderator to consider when studying nursing students and professionals. Moreover, previous research (Hopping, 1977) showed that there is an important link between nursing students' attitudes towards death and how they interact with terminal patients. Thus, future investigations should consider including it as an additional factor, as it may be another important moderator of the obtained results.

Professional nurses' ability to remain objective, and thus, experience less emotional distress, should serve as a beacon for nursing students. Nursing students' vulnerabilities and distress could be linked to job burnout, compassion fatigue, as well as considering continuing to work as a nurse. As such, novice and student nurses, thus, should be provided with training on how to remain objective and deflect emotional distress associated with dealing with terminal patients—a difficult but highly important job. Providing emotional competence training in the nursing studies, such as, effective coping strategies may lessen the impact of personal distress and may enhance the nursing practice.

### 7.3. Conclusion

Our studies have shown that regardless of the type of patient (terminal vs. recovery) professional nurses in different cultural contexts were not emotionally impacted. However, nursing students reported higher levels of distress and emotional impact, especially when the patient was described as terminal. Interestingly, there were no differences between those students who received training in palliative care and those who did not. Overall the obtained results suggest the need to revise the efficacy of palliative care training within the nursing education programs in order to enhance students' emotional competencies to deal with potentially terminally-ill patients.

### Conflicts of interest

The authors of the present paper declare no conflict of interest that may affect the undertaken research.

### Acknowledgments

We would like to thank Susana Gomez for her help in the data collection in the Southwest of the United States.

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