SLAUGOS MOKSLAS

The relations among empathy, occupational commitment, and emotional exhaustion of nurses

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Key words: *empathy; occupational commitment; emotional exhaustion; nursing.*

Summary. *The objective of this study was to determine whether empathy and occupational commitment significantly contribute to the emotional exhaustion of nurses. The sample group was 158 nurses from two regional Lithuanian hospitals, who completed self-report measures. A questionnaire consisted of 10 items reflecting empathy appearing on Davis (1983) Individual Reactivity Index, 4 occupational commitment items from Miller et al. (1988), and 7 emotional exhaustion items from the Maslach Burnout Inventory (Maslach, Jackson, 1981). Correlation analyses and structural equation modeling were employed to interpret the results.*

The results showed that nurses' occupational commitment plays an important role in the degree of emotional exhaustion they experience. Nurses having more empathy are more likely to develop higher occupational commitment. In addition, it was found that higher levels of empathy and occupational commitment of nurses are associated with lower emotional exhaustion. Nurses who stayed in the profession longer developed stronger occupational commitment. Therefore, the conclusion was made that differences in emotional exhaustion among nurses may be explained directly by occupational commitment and indirectly by empathy and nursing experience.

Introduction

Given the range of articles that address nursing care, job satisfaction, stress and burnout in nursing context, it is possible to draw a conclusion that the topic is of growing importance. Stress and emotional exhaustion have been identified as a reason why nurses leave the profession, and it can result in high absenteeism and turnover (1, 2). Especially it is critical in Lithuania, where the job satisfaction and emotional welfare in hospitals are quite low (3, 4). Undoubtedly, if emotional exhaustion among nurses is to be prevented, it is important to understand the factors that are related to it.

The research reveals several factors that are important for the quality of health professional work. Nurses provide care and adequate support for their patients, so they need interpersonal skills, some personality traits, values, and so on. Research shows that nurses' interpersonal skills make a difference to patients and their health care outcomes (2, 5, 6). Batson *et al.* (1988) revealed that feeling with another evokes altruistic action toward the person. One of the most important factors in nursing care quality is empathy (7).

Empathy increases the likelihood that care recipients will be treated altruistically and effectively. Unfortunately, it has been shown in the literature that the ability to offer empathy is lacking among professionals in the helping professions. Those individuals in our society designated as "more knowing," *e.g.* teachers, ministers, nurses, doctors, and psychologists, have often created feelings of impotence among recipients of that help (6).

Carver and Hughes (1990) provided an extensive rationale for the place of empathy in nursing (5). They proposed that empathy is crucial to the nurse's involvement with changing health demands arising from increased technology, different health/illness patterns in the management of chronic and terminal care (6). It has long been argued that the nurse-client relationship is the "cornerstone" of all care delivered. Authors suggest that the relationship has the potential to influence positive health outcomes for clients (6). Empathy is an important background of this relationship.

For example, La Monica *et al.* (1987) explored the effect of nurse's empathy on the anxiety, depression,

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hostility, and satisfaction with care of clients with cancer (8). They found less anxiety, depression, and hostility in clients being cared for by nurses exhibiting high empathy. However, Bennet (1995) pointed out that research had provided only minimal evidence to support the view that clinical empathy in nursing affected health care outcomes (9); also, the research provides support that empathy training programs for nurses may not be necessary (10). Nevertheless, the cumulative research evidence indicates that the relationship between empathy and health care outcomes is positive (6, 11).

Despite the benefits of nurse's empathy for patient's well-being, it has a negative effect also as it contributes to the emotional exhaustion of health professional (1, 12). Empathic nurses may sometimes feel stressed when caring out their basic tasks of promoting and maintaining the health of patients, helping them with their recovery process, relieving pain, and so on (13). This may result in burnout. The worst outcome of this is physical or psychological illness, when nurses need professional medical care themselves.

Burnout in health care workers is the construct used to describe the psychological state resulting from a prolonged period of high stress levels in their professional lives. It is characterized by physical and emotional exhaustion, feelings of depersonalization, and low productivity (13). Maslach and Jackson (1981) proposed that burnout is a negative psychological experience characterized by three components: depersonalization (perceiving care recipients as objects, or difficult, disliked people), reduced personal accomplishment (when the caretaker perceives that he/she is a failure in some or all phases of work largely due to ineffective patterns of interaction), and emotional exhaustion (when caretakers feel fatigued, worn out, and generally unable to summon sufficient energy to perform adequately their jobs) (1, 14). Although there is disagreement in the literature about whether these are stages or dimensions that occur simultaneously, we treat emotional exhaustion as a final phase of burnout process that is especially painful to the nursing staff. That was the rationale of looking for the relationship between empathy and emotional exhaustion in this study.

The concept of empathy has been the subject of a considerable amount of research (9, 12). Davis (1983) has argued that empathy must be considered as a set of constructs – empathic concern, personal distress, perspective taking, and fantasy (15). We analyzed it as one compound unified construct. The research does not provide clear findings about the relationships between empathy and burnout. Some authors argue that empathic concern may be beneficial in averting nursing burnout (16); others relate it to higher levels of emotional exhaustion (12, 17). Based on the disagreement and the concept of empathy, we hypothesized that empathy is positively related to emotional exhaustion.

However, it is possible that the relations between empathy and emotional exhaustion could be mediated by the type of nursing and years in profession. The research results show that nurse's experience is positively related to occupational commitment. Occupational commitment or job involvement can be defined as the creation of a strong relationship between the worker and his/her job and the readiness to invest personal resources in the current job (18, 19). Some authors argue that there is a sequential increase in nurse's empathy level with more years of experience and more occupational commitment (1, 12, 20). So, the relationship between empathy and emotional exhaustion can be explained by variations in occupational commitment. We tested the same hypothesis as other authors that higher occupational commitment is related to higher levels of empathy.

In addition, we propose that this relationship is stronger in pediatric care than in adult patient care, because pediatric care requires more intense emotional involvement of nursing staff. This can also be explained by variations in occupational commitment. Seriousness of illness may be the mediating variable as well (1, 21, 22).

Therefore, the objective of this research was to determine whether empathy and occupational commitment significantly contribute to the emotional exhaustion of nurses. The results could be useful in the selection, training, and development of nurses in Lithuanian hospitals, could contribute to nursing pedagogy and medical care assignments.

Method
Sample. The present study was carried out in two regional Lithuanian hospitals. The sample group was 160 nurses (80 subjects from each health care institution) who had volunteered to take part in the study. The researchers received permission from the chief executives of hospitals to distribute research material among nurses in their units. All distributed questionnaires were returned to the researchers. Due to missing data, two interviews had to be excluded from the analysis.

All participating nurses were women aged 22–59 years (mean age was 41.60 years, SD=8.03). Their work experience in health care system was from 1 to 38 years (the mean length of time nurses had been in the profession was 21.00 years, SD=8.51). Table 1

Table 1. **The distribution of nurses in different domains of health care**

	General health care center (outpatient clinic)	Hospital			Total
		pediatric department	adult department	gynecology department	
Number of nurses	38	43	49	28	158
%	24.1	27.2	31.0	17.7	100

illustrates the distribution of nurses in different domains of health care.

Instruments. Rated five-point Likert-style items ranging from strongly agree to strongly disagree were used to measure empathy, emotional exhaustion, and occupational commitment. We measured the variables named above using the same scales that Omdahl, O'Donnel (1999) reported using (1). The questionnaire consisted of 10 items reflecting empathy appearing on Davis (1983) Individual Reactivity Index (item examples, "I often have tender, concerned feelings for people less fortunate than myself," "I am often quite touched by things that I see happen"; Cronbach's alpha of these items was 0.60) (15), the four occupational commitment items, for example, "I believe I have chosen the best of all possible occupations to work in," "I would like to remain at this hospital for as long as possible" (from Miller et al., 1988) (17), Cronbach's alpha 0.64, and 7 emotional exhaustion items from the Maslach Burnout Inventory (14), item examples, "I feel used up at the end of a workday," "I feel like I am at the end of my rope", Cronbach's alpha 0,82. Scale reliabilities for all scales ranged from 0.60 to 0.82 and were acceptable. Finally, we included several single-item demographic and practice characteristics such as age, gender, nursing experience (*i.e.* years in nursing), type of nursing practiced.

Data analysis. Descriptive statistics was used to summarize empathy, occupational commitment, emo-tional exhaustion, and practice of the sample. In addition, bivariate correlations among the research variables were computed using a correlation matrix. The ANOVA was conducted to test the research variable differences between types of nursing. Based on these findings and literature review, a path model was then identified and tested using AMOS 4.0 with maximum likelihood estimation. Given the degree of association between the independent and dependent variables in this study, structural modeling provided the best approach. As suggested in the literature (23), fit measures used for evaluating the models were: relative chi-square (χ^2/df), GFI (goodness-of-fit index), RFI (relative fit index), NFI (normed fit index), CFI (comparative fit index) and RMSEA (root mean square error of approximation). The accepted thresholds for these indices are: χ^2/df ratio should be less than 3; the value of GFI, RFI, NFI, and CFI should be greater than 0.90; and RMSEA is recommended to be up to 0.05 and acceptable up to 0.08 (24).

Results

Means, standard deviations, and bivariate correlation coefficients for the study variables are given in Table 2. Empathy and occupational commitment were negatively correlated to emotional exhaustion (r=–0.19, P<0.05; r=–0.40, P<0.001, respectively). Empathy and occupational commitment were positively associated with each other (r=0.39, P<0.001). Only occupational

Table 2. **Means, standard deviations, and bivariate correlation coefficients for the study variables (n=158)**

Variable	Mean	Standard deviation	Empathy	Occupational commitment	Emotional exhaustion
Empathy	38.17	3.85			
Occupational commitment	14.34	3.03	0.39***		
Emotional exhaustion	17.84	5.23	–0.19*	–0.40***	
Nursing experience	21.00	8.51	0.08	0.24**	–0.001

***P<0.001; **P<0.01; *P<0.05.

commitment was positively correlated to nursing experience ($r=0.24$, $P<0.01$), whereas empathy was not ($r=0.08$; $P>0.20$).

Analysis of variance revealed that four groups of different nursing types differed statistically significantly in emotional exhaustion ($F(3,154)=3.48$, $P<0.05$), but did not differ in empathy ($F(3,154)=0.98$, $P>0.05$), occupational commitment ($F(3,154)=1.16$, $P>0.05$), and nursing experience ($F(3,154)=2.22$, $P>0.05$). Bonferroni post hoc tests showed that nurses who worked in adult department scored significantly higher on emotional exhaustion ($M=19.31$, $SD=5.36$) than the nurses who worked in gynecology department ($M=15.96$, $SD=5.20$).

Path analyses were used to investigate the paths between the nurses' empathy, occupational commit-

ment, and emotional exhaustion. Nursing experience and type of nursing were also included in the analyses. The full model, with significant path coefficients (beta weights), is presented in Fig. 1. All paths were significant with the exception of the path from pediatric department to emotional exhaustion and from the adult department to the emotional exhaustion. This suggests that the type of nursing experience could be excluded from the model with the exception of nurses' experience type in the gynecology department.

Table 3 presents the summary statistics for goodness-of-fit indices for the main and revised models. A comparison between these models reveals that the revised model fits the data better than the main model. The χ^2/df was 6.83, the RMSEA was 0.19, and the GFI, RFI, NFI, CFI indices were below 0.90 in the
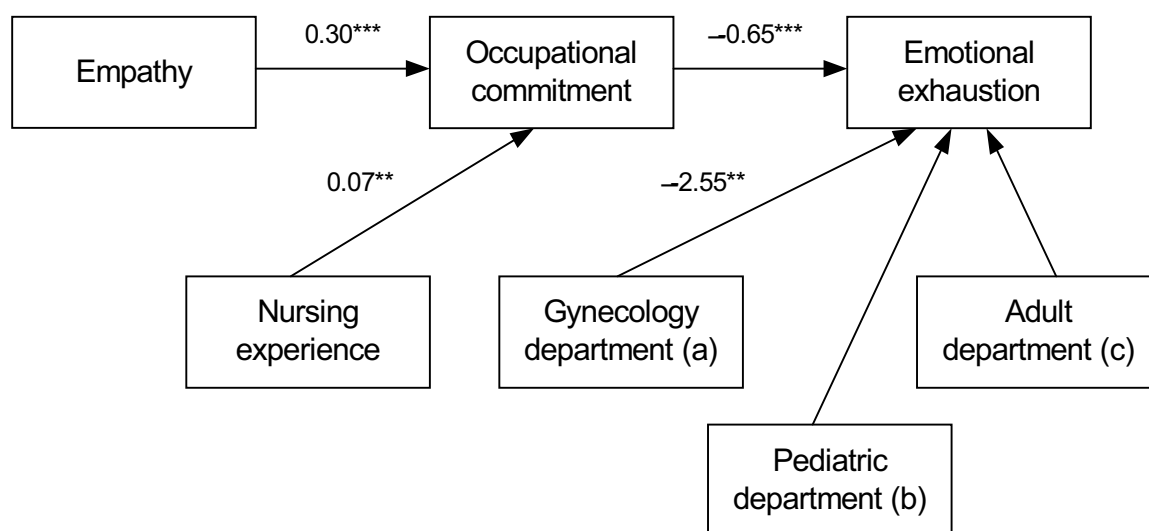

Fig. 1. **Path coefficients of main model testing predictors of nurses' emotional exhaustion**
Only statistically significant path coefficients are shown (***$P<0.001$; **$P<0.01$); (a) no gynecology department = 0, gynecology department = 1; (b) no pediatric department = 0, pediatric department = 1; (c) no adult department = 0, adult department = 1.

Table 3. **Goodness-of-fit statistics for the nurses' empathy, occupational commitment, and emotional exhaustion models**

Model	df	χ^2	χ^2/df	GFI	RFI	NFI	CFI	RMSEA
Main model	15	102.50	6.83	0.88	0.17	0.41	0.42	0.19
The first revised model (without type of nursing in pediatric and adult departments)	6	5.38	0.90	0.99	0.88	0.93	1.00	0.00
The second revised model (without any type of nursing)	3	2.97	0.99	0.99	0.91	0.95	1.00	0.00

df – degree of freedom; GFI – goodness-of-fit index; RFI – relative fit index; NFI – normed fit index; CFI – comparative fit index; RMSEA – root mean square error of approximation.

main model. All fit indices show better fit statistics in revised models.

The first revised model (main model without type of nursing in pediatric and adult departments) provided a good fit to the data (χ^2/df=0.90; GFI=0.99; NFI=0.93; CFI=1.00) with the exception of the RFI. However, RFI value of 0.88 is very close to the accepted level (0.90). The exclusion of any type of nursing yields an improvement in the second revised model. That is demonstrated in the change in RFI (improved from 0.88 to 0.91). Other fit indices (χ^2/df=0.99; GFI=0.99; NFI=0.95; CFI=1.00) show that the second revised model fit the data fairly well.

Standardized parameter estimates for the second revised model are presented in Fig. 2. Both nurses' empathy (β=0.30) and nursing experience (β=0.07) were significantly and positively associated with occupational commitment. Finally, occupational commitment was significantly and negatively associated with emotional exhaustion (β=−0.69).

Discussion

The purpose of this research study was to determine whether empathy and occupational commitment significantly contribute to the emotional exhaustion of nurses. Emotional exhaustion was considered central to the experience of burnout (13).

The results from this study provide the evidence that nurses' empathy and occupational commitment are significant predictors of emotional exhaustion. A very clear pattern emerged: empathy is positively associated with occupational commitment, and they both are negatively associated with emotional exhaustion. This pattern is contrary to our hypothesis, but consistent with some prior findings (16). Therefore, these results confirm the idea that empathy may be beneficial in averting nursing burnout. The negative correlation in our study was not strong, but statistically significant.

We found the support to our hypothesis that higher occupational commitment was related to higher levels of empathy. In addition, we found that occupational commitment was strongly negatively related to emotional exhaustion. These results supported the idea proposed by Halpern (2003) and Omdahl and O'Donnel (1999) that the relationship between empathy and emotional exhaustion could be better explained by variations in occupational commitment (1, 12). Structural equation model confirmed that occupational commitment was the mediating variable that can provide the better prediction of emotional exhaustion in nursing settings. The results have important practical implications that should be taken into account organizing health care work. Lower level of empathy results in reduced occupational commitment and both of them contribute to higher emotional exhaustion of nurses. Based on these findings one recommendation can be made – in order to reduce nurses' levels of emotional exhaustion, it is necessary to promote and develop empathy.

Contrary to the results of Omdahl and O'Donnell (1999), we found that there were significant differences in emotional exhaustion based on the different types of nursing practiced (1). However, our results only partly supported the findings of Oehler, Davidson (1992) and Bram, Katz (1989) concerning the domain of nursing (21, 22). They have found differences between pediatric and adult care. We found no differences between pediatric and adult care, and nurses working in adult department scored significantly higher on emotional exhaustion than nurses working in gynecology department. As the results were contradictory, these findings should be tested in future investigations including other domains of care (for example, oncology, coronary diseases, surgery departments).

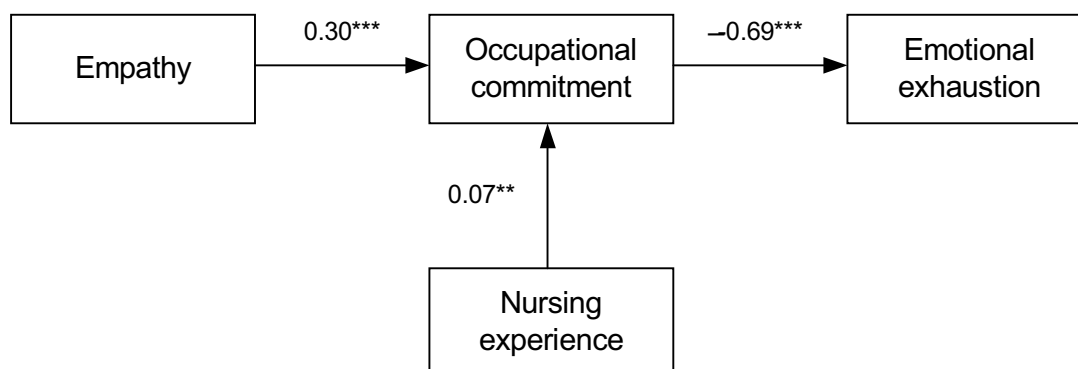The last variable tested in our investigation was

Fig. 2. Path coefficients of the second model testing predictors of nurses' emotional exhaustion
Only statistically significant path coefficients are shown (***P<0.001; **P<0.01).

nursing experience or, differently stated, years in profession. Our results revealed that nursing experience was positively correlated to occupational commitment. When these results were compared with the results of similar studies (1, 6), they were found to be consistent. More interesting are the findings that neither empathy nor emotional exhaustion was significantly correlated to experience of the nurse. This indicates that among nurses who stay in the profession, emotional exhaustion does not increase with experience.

Path analysis revealed that some nurses were more emotionally exhausted than others, but it seems to be due directly to factors such as occupational commitment and indirectly to factors such as empathy and nursing experience. Unfortunately, statistical analyses were not meaningful evaluating the impact of domain of nursing, perhaps because of the small number in the groups.

However, our study also has some limitations that must be taken into account in future research. It focused on the empathy as the unified construct. Other authors who investigate empathy propose to differentiate some components of this concept, as they can be differently related to emotional exhaustion of nurses (1, 12). Future research, especially in Lithuania, will need to include more variables associated with emotional exhaustion in nursing settings (for example, personality traits, values, job satisfaction, and others). It is hoped that the results of this investigation and future research on this topic will guide nursing practice and education.

Conclusions
Summarizing the results of the presented investigation, the following conclusions were made:
- Nurses having more empathy are more likely to develop higher occupational commitment.
- Higher levels of empathy and occupational commitment of nurses are associated with lower emotional exhaustion.
- Nurses who stay in the profession longer develop stronger occupational commitment.
- Differences in emotional exhaustion among nurses may be explained directly by occupational commitment and indirectly by empathy and nursing experience.

Sąsajos tarp slaugytojų empatijos, profesinio atsidavimo ir emocinio išsekimo

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Raktažodžiai: empatija, profesinis atsidavimas, emocinis išsekimas, slauga.

Santrauka. *Tyrimo tikslas.* Nustatyti, ar empatija bei profesinis atsidavimas gali padėti numatyti slaugytojų emocinį išsekimą. Tyrime dalyvavo 158 slaugytojos, dirbančios dviejose Lietuvos miestų ligoninėse. Jos pildė klausimyną, kurį sudarė 10 klausimų apie empatiją (M. Davis, 1983), keturi klausimai apie profesinį atsidavimą (K. Miller ir kt., 1988) ir septyni klausimai apie emocinį išsekimą (C. Maslach, S. E. Jackson, 1981). Rezultatų analizei apskaičiuoti koreliacijos koeficientai ir struktūrinių lygčių modelis.

Tyrimo duomenimis, slaugytojų profesinis atsidavimas vaidina svarbų vaidmenį patiriamam emociniam išsekimui. Slaugytojos, pasižyminčios didesne empatija, turi didesnį profesinį atsidavimą. Taip pat nustatyta, kad didesnė empatija ir profesinis atsidavimas yra susiję su mažesniu emociniu išsekimu. Slaugytojos, turinčios didesnį darbo stažą, pasižymėjo didesniu profesiniu atsidavimu. Apibendrinant rezultatus, padaryta išvada, jog slaugytojų emocinį išsekimą galima numatyti tiesiogiai pagal jų profesinį atsidavimą ir netiesiogiai – pagal empatiją bei darbo stažą.

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