Majda Pajnkihar, Dominika Vrbnjak, Gregor Štiglic,
Primož Kocbek, Marlaine Smith, Kasandra Musović

13 Fit for practice: assessing faculty nurse caring behaviours

Abstract: A theory, knowledge, and evidence-based curriculum where caring is the central focus of the discipline of nursing provides a foundation to guide the nursing profession. Positive faculty caring, role modelling, and creating caring environments enhance students' caring behaviours and values about caring. Caring outcomes in practice depend on learning and teaching processes; therefore, nurses' caring views mainly originate from nursing education. What is taught is as important as how it is taught. Nurse educators have a crucial role in creating a caring environment, modelling caring, and including caring in a nursing curriculum. Even so, there are restricted studies investigating faculty caring behaviours. Therefore, this study explored student nurses' perceptions of faculty caring behaviours. A cross-sectional study including 192 nursing students from Slovenia was conducted in April 2019. Data were collected using Caring Assessment Tool – Educational Version (CAT-edu), a 5-level Likert scale with a score ranging from 94 to 740 (least to most caring). The CAT-edu instrument was developed initially by Duffy and is based on Watson's Theory of Human Caring. Each item or several items together correspond to and reflect concepts of Watson's theory. Data were analysed using descriptive statistics and one-way ANOVA with the Tukey honest significant difference post-hoc test. The highest mean CAT-edu score was measured in the third-year students ($M = 324.6$, SD = 46.5), followed by first-year students ($M = 301.8$, SD = 38.3) and second-year students ($M = 285.3$, SD = 43.8). One-way ANOVA results show the statistically significant difference among students from different years of study ($F(2,188) = 14.06$, $p < 0.001$). Post-hoc testing confirms the difference between first- and third-year students ($p = 0.020$), second- and third-year students ($p < 0.001$), but not between first- and second-year students ($p = 0.084$). Caring is a foundation for implementing systematic, holistic, and individual patient care and developing human, professional, and equal interpersonal relationships. Assessing students' perceptions of faculty caring can provide important information about the educational program's structure and processes and help understand students' way of learning how to care for themselves and patients. Forming a positive, caring relationship between faculty and nursing students can create caring attributes in students. This study suggests some differences in incorporating caring into nursing curriculum and fostering caring and supporting caring behaviours by nurse educators. Despite limitations such as sample size, results can contribute to the body of caring knowledge. Results can be used in creating a caring environment, curriculum, and development of

Acknowledgment: The authors acknowledge student nurses who participated in this study.

https://doi.org/10.1515/9783110786088-013

effective strategies so that students will be fit to practice caring. Nurse educators can understand caring behaviours and form their role as caring nurse educators. Providing more efficient teaching/learning caring ensures safe, quality nursing care for the patients and nurses' work satisfaction.

Keywords: caring, faculty caring, student nurse

13.1 Introduction

Caring is a core value of nursing [1–10]. Caring has a positive effect on patients, nurses [11, 12], and organizations [13, 14] and has a significant influence on nursing care quality and safety of the patients [15–17]. Caring is an anticipated competency of nursing students [18–21]. There are inconsistencies and a lack of understanding of what caring means in nursing education. Different authors discuss caring and its importance to nursing education. However, all agree that their education affects nurses' perception of caring [22, 23].

Teaching caring behaviours should be taught through caring interactions with faculty [24]. The transition of caring into nursing practice is conditioned by its nurture in nursing education [25, 26]. The "what" that is taught is as important as "how" it is taught [27]. It is essential to create caring environments during the educational process and role model caring relationships [28]. Nursing curricula based on theory, knowledge, and evidence, where caring is the principal focus of the discipline, could provide a basis to direct the nursing profession [29]. Jean Watson's Theory of Human Caring supports and enhances nursing education [30], research, and practice [20, 31, 32] by highlighting and placing caring in the centre. Undergraduate and postgraduate nursing has been based on nursing theories; however, not well around caring theories. Consequently, this can have a toll on the nursing discipline [32].

Some nursing faculties pay more attention to caring in education than others [20, 32, 33]. Although nursing models are slowly being incorporated, the biomedical model in nursing can still be observed [32]. Several studies show that students do not quite understand what caring is and perceive caring in an instrumental manner [34–36]. An international cross-cultural study showed that students, who were taught caring theories, scored the highest on expressive dimensions of caring values compared to those whose faculties did not implement caring theories in their curriculum [35]. However, caring perceptions seem to vary according to the year of study [35, 37]. Nurse educators have an essential role in modelling caring in nursing education [38, 39]; thus, their caring behaviours positively influence students' caring behaviours [40]. There are several studies that focused on caring in nursing education. Nursing students feel that the faculty has role-modelled caring behaviours and have experienced and developed caring relationships during education. The findings also emphasize the necessity

of developing the caring model in nursing education [41]. Another study demonstrated the importance of connecting caring theory to caring practice. Implementing caring in the nursing education curriculum facilitates the students' understanding of caring in clinical nursing situations and supports their growth in their understanding of caring through modelling [42].

Empirical evidence of the value of environments based on theory-based behaviours has never been more critically important [43]. Assessing students' perceptions of faculty caring can provide important information about the educational program's structure and processes [44] and can help understand student nurses' way of learning how to care [38, 45]. Therefore, this research explored nursing students' perceptions of faculty caring behaviours.

13.2 Methods

13.2.1 Study design

The study implemented a descriptive cross-sectional design.

13.2.2 Setting and participants

The study included 192 undergraduate nursing students in Slovenia from a faculty that implemented Watson's theory in the nursing study programs. In Slovenia, the nursing education program lasts 3 years (180 ECTS credits). The convenience sampling method was used to recruit participants. The required sample size was calculated for population data, 95% confidence level, and 5% margin of error [46]. The minimum sample size satisfying these criteria was calculated ($n = 186$). We have included both full- and part-time male or female nursing students attending first, second, or third year of studies. Before data collection, ethical approval was obtained from the institutional ethics committee.

13.2.3 Data collection and questionnaire

Data were collected in April 2019. The questionnaires were delivered to students while in the classrooms.

The first part of the questionnaire collected brief demographic data (sex, age, year of study, type of study). Next, the data was collected using the Caring Assessment Tool – Educational Version (CAT-edu) with permission from the author (License #001018). The tool has 94 items designed to capture students' perceptions of faculty

nurse caring behaviours. The CAT-edu instrument was developed initially by Duffy in 1997 as an adaptation of the original Caring Assessment Tool (CAT) and is based on Jean Watson's theoretical framework. Each item or several items correspond to and reflect a "carative factor" and is assigned a Likert-type closed-response score measuring the frequency with which each behaviour occurs during a students' learning experience from 1 (never) to 5 (always); thus, the score has a possible range from 94 to 470. Several items (21) are worded negatively and/or overlap with other items; they were intentionally designed to minimize the chance of error or careless responding. Items numbered 4, 8, 13, 18, 27, 36, 38, 42, 44, 46, 51, 59, 62, 69, 74, 75, 80, 83, 85, 88, and 94 are such items. Those items were refactored inversely prior to the analysis. Individual item scores are summed up, giving us a total score that can be categorized from low to high caring. In the original version, Cronbach's coefficient alpha was 0.98 [47]. Alpha internal consistency reliability was measured at 0.97. The instrument was translated into Slovene language using back-translation as a gold standard for providing semantic equivalence [48]. Our Slovene version of the CAT-edu questionnaire in this study resulted in Cronbach's coefficient alpha of 0.75.

13.2.4 Statistical analysis

Data were analysed using descriptive statistics and one-way ANOVA with Tukey's honest significant difference (HSD) post-hoc test for pairwise comparisons. Furthermore, a one-way ANOVA test based on the year of study was performed with a corresponding post-hoc Tukey HSD test to evaluate the difference between the 2 years of study; in both cases, the average values of the instrument (CAT-edu) were compared. Additionally, mean values for each CAT-edu component by the year of study were compared with a one-factor ANOVA with a post-hoc Tukey HSD test to evaluate the difference between 2 years of study. A standard significance level of $\alpha = 0.05$ was used [49].

In 34 (17.7%) cases, at least one estimate was missing, and this would mean, for example, that even though the other 93 claims were evaluated, CAT-edu could not be calculated in this case. Therefore, we decided to impute the missing data using the method of *K*-nearest neighbour, where missing values are determined from the values of similar adjacent variables. Given that we impute data with the Likert scale, the recommendation [50] is to take the square root of the number of responses without missing values (158); in our case, that was 13. Data were analysed using R statistical software version 4.1.1 [51].

13.3 Results

A total of 192 undergraduate nursing students participated in the study, with at least 1 answer missing in 34 (17.7%) cases. Furthermore, in the assumptions for the one-way ANOVA, we observed that there was one solitary ("extremely" low-value "CAT-edu") that was removed from further analysis ($n = 191$), which is described in more detail further. The students were mostly female (85.9%, $n = 164$), enrolled full-time (96.3%, $n = 184$) in the study program and were on average 21.1 (SD = 2.9) years. Fifty (26.2%) first-year nursing students, 84 (44.0%) second-year nursing students, and 57 (29.8%) third-year nursing students were surveyed. A review of mean values by the year of study showed that the highest CAT-edu average was in third-year students with 326.7 (SD = 48.3), followed by first year with 302.8 (SD = 39.8) and second year with 285.9 (SD = 45.7) (Tab. 13.1 and Fig. 13.1).

Tab. 13.1: Average values and standard deviation of CAT-edu values according to the year of study.

Year of study	*n*	*M*	SD
First year	50	302.8	39.8
Second year	84	285.9	45.7
Third year	57	326.76	48.3

M, mean; *n*, number of participants; SD, standard deviation.

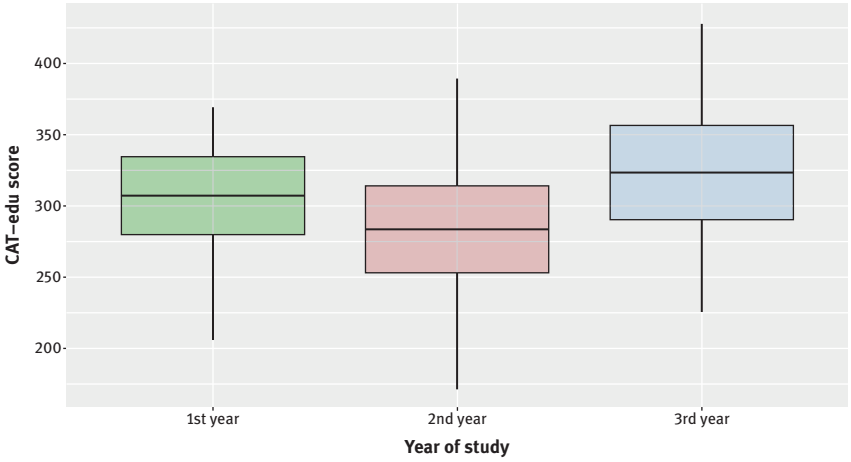

Fig. 13.1: CAT-edu quantile graphs according to the year of study.

The results of the one-way ANOVA show that there is a significant statistical difference between the years of study according to CAT-edu ($F(2,188) = 13.92$, $p < 0.001$). Tukey's post-hoc HSD shows that there is a statistical difference in the students' perception of faculty caring between first and third year (difference 23.9, $p = 0.0187$, higher in third year compared to first year) and between second and third year (difference 40.8, $p < 0.001$, higher in third year compared to second year), but not between first and second year (difference −16.9, $p = 0.092$). If, instead of the standard degree characteristic $\alpha = 0.05$, we take the degree characteristic 0.10, we notice that there is also a statistical difference between the first and second year of study.

Table 13.2 presents the results of individual items of the students' perceptions of faculty caring. The statement "answer my questions" ($M = 4.16$), "respect me" ($M = 4.09$), "look me in the eyes when they talk to me" ($M = 4.00$), and "don't want to talk to me" ($M = 3.96$) were rated the highest among all years. Because of the high number of items (94), we have decided to present only the most significant ones ($p < 0.001$).

13.4 Discussion

We have examined first-, second-, and third-year nursing students' perceptions of faculty caring. The study results showed that third-year students compared to first and second year have the highest CAT-edu score, meaning that the third-year students' perceptions of faculty nurse caring behaviours were the highest. The included Slovenian faculty has incorporated Watson's theory [17]. It is introduced to students in their first year of study and is nurtured during their clinical practice, which may influence students' perception of patient and faculty caring. Similarly, in a study done in Slovenia, third-year students scored higher than first-year students regarding caring behaviours using the Caring Behaviors Inventory instrument [52]. The similar results can be argued that similar regions can possess similar characteristics [53]. However, in a similar study, first-year students without clinical experience expressed higher agreement with caring behaviour items, which is interesting since they are the most vulnerable in the clinical environment [54]. Nevertheless, their strong agreement may reflect their beliefs about nursing [55]. Perceptions among nursing students probably differ, given different education, curricula, societal values, and culture [35, 56].

The statement "answer my questions", "respect me", and "look me in the eyes when they talk to me" were rated the highest among all 3 years. Caring communication skills and respect are essential characteristics of faculty caring behaviour that affect students' learning environment [57]. In another study, students ranked faculty characteristics in online caring rank providing timely communication the highest [58]. Jones et al. define caring as "intentional communication and actions designed to meet students' actual and potential needs for human connection, learning, support, and respect" [59, 60]. Our results also align with other studies that

Tab. 13.2: The results of individual items of students' perceptions of faculty caring according to the year of study (in descending order according to the average of all years).

No.	Statement	Average (all years)		First year	Second year	Third year	One-way ANOVA	Tukey's HSD
		M	SD	*M*(SD)	*M*(SD)	*M*(SD)		
48	Question me about my past experiences in nursing.	3.66	1.01	3.76 (1.0)	3.36 (1.01)	4.02 (0.9)	8.118 ($p < 0.001$)	Third > second
15	Support me with my beliefs.	3.39	0.86	3.52 (0.91)	3.11 (0.76)	3.68 (0.83)	9.263 ($p < 0.001$)	Second < first, third > second
11	Use my name when they talk to me.	3.37	1.23	3.76 (1.1)	2.9 (1.25)	3.7 (1.09)	11.85 ($p < 0.001$)	Second < first, third > second
65	Make me feel as comfortable as possible.	3.33	0.99	3.46 (1.01)	2.95 (0.88)	3.77 (0.93)	13.877 ($p < 0.001$)	Second < first, third > second
16	Help me to believe in myself.	3.29	0.98	3.42 (0.97)	3 (0.93)	3.6 (0.94)	7.425 ($p < 0.001$)	Second < first, third > second
84	Help me achieve my career goals.	3.20	0.96	3.1 (0.84)	2.98 (0.98)	3.61 (0.9)	8.508 ($p < 0.001$)	Third > first, third > second
14	Seem interested in me.	3.15	0.93	3.22 (0.93)	2.86 (0.87)	3.53 (0.87)	9.92 ($p < 0.001$)	Third > second
77	Keep me challenged.	3.06	0.91	2.88 (0.9)	2.9 (0.79)	3.44 (0.98)	7.682 ($p < 0.001$)	Third > first, third > second
43	Accept what I say, even when it is negative.	3.04	0.89	3.06 (0.79)	2.79 (0.89)	3.4 (0.86)	8.8 ($p < 0.001$)	Third > second
87	Understand my unique situation.	3.01	0.93	2.88 (0.75)	2.77 (0.96)	3.47 (0.87)	11.436 ($p < 0.001$)	Third > first, third > second

(continued)

Tab. 13.2 (continued)

No.	Statement	Average (all years)		First year	Second year	Third year	One-way ANOVA	Tukey's HSD
		M	SD	*M*(SD)	*M*(SD)	*M*(SD)		
73	Make me feel secure regarding my performance in school.	2.96	1.05	2.92 (0.94)	2.67 (0.99)	3.44 (1.07)	10.16 ($p < 0.001$)	Third > first, third > second
93	Show respect for those things that have meaning for me.	2.95	1.03	2.9 (1.04)	2.65 (0.91)	3.42 (1.03)	10.413 ($p < 0.001$)	Third > first, third > second
39	Encourage me to talk about whatever is on my mind.	2.79	1.02	2.52 (0.95)	2.63 (0.99)	3.25 (0.99)	9.16 ($p < 0.001$)	Third > first, third > second
81	Help me feel less worried.	2.75	1.08	2.7 (0.95)	2.39 (1.03)	3.33 (1.02)	14.863 ($p < 0.001$)	Third > first, third > second
54	Help me understand my feelings.	2.66	1.06	2.72 (0.99)	2.35 (1.04)	3.07 (1.02)	8.731 ($p < 0.001$)	Third > second
92	Helps me cope with the stress of my work.	2.62	1.03	2.58 (0.93)	2.33 (0.91)	3.09 (1.12)	10.079 ($p < 0.001$)	Third > first, third > second
76	Make sure I have time out for my own needs.	2.59	1.13	2.54 (1.01)	2.19 (1.02)	3.23 (1.12)	16.651 ($p < 0.001$)	Third > first, third > second
90	Knows what is important to me	2.56	1.09	2.54 (1.03)	2.27 (1.05)	3 (1.09)	8.062 ($p < 0.001$)	Third > second
72	Spend time with me.	2.31	1.11	2.46 (1.03)	1.98 (0.96)	2.68 (1.26)	8.01 ($p < 0.001$)	Second < first, third > second

M, mean; no., statement number; *p*, statistical significance at < 0.05; SD, standard deviation for mean.

one of desired faculty caring behaviours is “answering student questions patiently, directly, and respectfully” [60]. It appears that communication and respect are linked and desired faculty caring behaviour. Interestingly, “don’t want to talk to me” is also highly rated. This item and its high rank do not match the previously mentioned items. We could assume that some students may be frustrated by the unavailability of the nurse educators. Communication and communication skills play an essential role in nursing education and practice [61]. Poor communication skills can lead to students lacking motivation, disliking faculty, and believing they cannot accomplish themselves [62]. The statement “spend time with me” was, intriguingly, rated the lowest, congruent with the highly rated item “don’t want to talk to me”. Students’ perception on faculty caring impacts their academic performance. The faculty’s positive outlook and compassion towards students are associated with nursing students’ improved academic performance. Faculty–student interactions and student outcomes in nursing practice are shaped by the conditions in the learning environment [63].

13.4.1 Limitations

Several limitations should be considered when interpreting our results. Convenience sampling allows limited generalization of the results. The data were collected at one faculty in Slovenia; therefore, it cannot represent all the population of nursing students in Slovenia. It is impossible to establish casual relations with a cross-sectional design. Hence, longitudinal studies would be preferred.

13.5 Conclusion

Despite our study limitations, it provided an overview of students’ perceptions of faculty caring behaviours. Third-year nursing students rated faculty caring behaviours as the highest compared to first- and second-year students. This could be due to their long relationship with the faculty, and they have already been exposed to clinical practice and caring theories. Some students rated items “answer my questions”, “respect me”, and “look me in the eyes when they talk to me” the highest, which stresses the importance of communication and respect between faculty and students. On the other hand, students feel that their teachers do not spend enough time or talk to them as they wish they would. Similarly, in nursing practice, the patients need to communicate with health professionals and want their real caring presence. The results show that nursing education should emphasize incorporating caring theories and facilitating the caring relationship between faculty and students. Creating a caring academic environment will allow the transition of caring

behaviours into nursing practice, where the nurses and patients will be supported, as well as patients' families.

Funding: The authors received no financial support for this study's authorship and/or publication.

Conflict of interests: The authors declared no potential conflicts of interest with respect to the authorship and/or publication of this research.

Ethical approval: Ethical approval was obtained from the respected institution where the study was held (no. 038/2019/1806-2/504). Before distributing the questionnaire, nursing students were informed about the study's purposes, anonymity, confidentiality, and voluntary participation. Their completion and return of the questionnaires were treated as implied consent. Completed surveys were stored securely, and password-protected computer data was accessible only to researchers.

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