

ORIGINAL RESEARCH

The Impact of Performance of Non-Nursing Tasks on the Attitudes of Nursing Students toward Nursing Profession



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Article Info

Article History:
Received: 4 March 2022
Revised: 17 June 2022
Accepted: 22 June 2022
Online: 31 August 2022

Keywords:
Jordan; nursing profession;
nursing students; registered
nurses

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Abstract

Background: Performing non-nursing tasks (NNTs) by registered nurses is considered as one of the most challenging issues faced by nursing sector worldwide. The negative impacts of nurses' engagement in NNTs were not limited to nurses or clients, but also nursing students who train in clinical areas. Performance of NNTs is found to aggravate nurses' confusion about their professional roles and identity. However, the impact of performance of NNTs on nursing students has not been yet studied.

Purpose: This study aimed to investigate the impact of witnessing performance of non-nursing tasks by registered nurses on nursing students' attitudes toward the nursing profession.

Methods: A descriptive comparative study was conducted from September 2021 to January 2022. A convenience sampling was used and 409 valid questionnaires were obtained from Jordanian nursing students who were at least in their second academic year and had completed at least one clinical training period in one of the clinical settings. Attitude Scale for Nursing Profession was used to explore the participants' attitudes toward the nursing profession. Descriptive statistics and independent t-test were used for data analysis.

Results: The results revealed that approximately 48% of the participants witnessed performance of NNTs by registered nurses during their clinical training. Student participants who witnessed performance of NNTs ($M=154.4$, $SD=17.5$) showed significantly less positive attitude toward the nursing profession than those who did not witness ($M=157.4$, $SD=12.2$), $t(407)=-2.03$, $p=0.007$.

Conclusion: Around half of student participants witnessed performance of NNTs by registered nurses during clinical training. Performance of NNTs had a significant effect on nursing students' attitudes toward nursing profession. Appropriate measures should be prior to clinical training to enhance nurse students' awareness about professional scope of nursing profession.

How to cite: Ayasreh, I. R., Hayajneh, F., & Al Awamleh, R. (2022). The impact of performance of non-nursing tasks on the attitudes of nursing students toward nursing profession. *Nurse Media Journal of Nursing*, 12(2), 150-159. <https://doi.org/10.14710/nmjn.v12i2.45075>

1. Introduction

Performing non-nursing tasks (NNTs) by registered nurses is considered as one of the most challenging issues faced by nursing sector worldwide (Hammad et al., 2021). Registered nurses' engagement in NNTs is the focus of many previous studies in which NNT is defined as any action that registered nurses perform out of scope of nursing practice (Palese et al., 2019), and/or not related to direct client's care (Bekker et al., 2015; Hammad et al., 2021). Such NNTs include - but are not limited to - clerical tasks, delivering or retrieving food trays, transferring stable patients (Grosso et al., 2019), supply and order management, cleaning clients' rooms (Bekker et al., 2018), and answering phone calls (Palese et al., 2019). Grosso et al. (2019) conducted a qualitative study to explore NNTs as experienced by nurses and found that NNTs involve three categories of activities: those that require less education (such as those performed by healthcare assistant), those that require same level of education (such as those performed by physiotherapists), and those that requires higher education as compared to nurses (such as those performed by physicians).

Carrying out duties outside the job description of registered nurses has been found to have deleterious effects on the public reputation of nursing profession and the quality of care provided to clients (Park & Hwang, 2021). In a study conducted by Bekker et al. (2015), a positive

relationship was found between performing NNTs and leaving important nursing tasks undone. This means that nurses waste their valuable time and efforts in doing unnecessary non-nursing activities at the expense of nursing caring intervention and duties. Consequently, nurses become liable to negligence and malpractice, particularly in terms of clients' education, surveying, and monitoring (Ahmed et al., 2020; Grosso et al., 2019). At the individual level, it has been found that nurses reported decreased feelings of independence and resilience (Bekker et al., 2015), increased level of emotional distress and frustration, and therefore, decreased satisfaction with nursing job (Ahmed et al., 2020; Grosso et al., 2019). Another study conducted by Kang et al. (2016) revealed that performing NNTs by registered nurses poses a great threat to client's safety, as it increases the risk of patient's adverse event, particularly in terms of hospital-acquired infections, bedsores, inappropriate administration of medications, and falls.

The negative impact of nurses' engagement in NNTs might not be limited to nurses or clients, but also nurse students who train in clinical areas. A recent study conducted by Palese et al. (2019) on nursing students, who witness nurses' performance of NNTs, found that nursing students experienced a conflict between what those students learned during their study course and what nurses actually perform. Furthermore, nursing students perceived practicing non-nursing practices as a threat to their learning opportunities of ideal conception and identity of nursing profession (Palese et al., 2019). Therefore, many previous studies recommended developing appropriate support measures in forms of preparatory pre-clinical courses to promote the awareness of nursing students about the nursing profession, and to correct their misconceptions regarding nursing care interventions (Ayasreh & Khalaf, 2020; Rokhafrooz et al., 2022). However, it has been suggested that effectiveness of these pre-clinical courses might be maximized if they are based on the views and misconceptions of nurse students toward nursing profession.

This study was conducted in Jordan, which is considered as one of the main destinations for therapeutic tourism in the Middle East, and this is attributed to possessing of high quality medical and health technologies, in addition to highly competent well-qualified medical and nursing personnel (Anshasi & Alsyouf, 2020). However, According to the Global Health Observatory of World Health Organization (2022), the ratio of nursing and midwifery personnel per 10,000 of Jordan population was 33.9, which is lower than world average. These statistics highlight the problem of low employment rate of nurses in Jordan, particularly in governmental hospitals, which have worsened by inefficient geographical distribution of nursing personnel and high rate of Jordanian nurses' migration (AbuAlRub et al., 2016). Accordingly, and due to scarcity of empirically based research studying the phenomenon of NNTs at the local level, this study was aimed to investigate the impact of witnessing performance of non-nursing tasks by registered nurses on the nursing students' attitudes toward the nursing profession.

2. Methods

2.1 Research design

A descriptive comparative design was used. This design is appropriate as this study addresses the comparison between the views of nursing students who witnessed performance of NNTs by registered nurses during their practical training and those who did not witness (Polit & Beck, 2021).

2.2 Setting and samples

This study employed convenience sampling strategy to select a sample of nursing students from six Jordanian governmental and private nursing schools that provide a four-year baccalaureate nursing program. These schools were distributed over all regions of Jordan: The North, The Middle, and The South. The number of nursing students in these schools ranged from 350 to 1500 distributed over all academic years. The clinical part of curriculum in these schools form approximately 45% of total credit hours, with taking in consideration that clinical training begins usually from the second academic year. Based on the inclusion criteria, nurse students who completed their first academic year and had clinically trained in one of health care settings, were selected. Students who were enrolled in studying nursing through bridging program and working in health care institutes at the time of data collection were excluded. G*Power (version 3.1.9.4) was used to estimate the required sample size based on significance level of 0.05, effect size of 0.50, and a power of 0.95. Accordingly, the calculated required minimum sample size for this

study was 210. However, a total of 500 questionnaires were distributed to eligible nursing students to overcome anticipated low response rate. The response rate was 81.8% (409 nurse students).

2.3 Measurement and data collection

A paper-based questionnaire was utilized for data collection in this study. Each questionnaire involved three sections. The researchers developed the first section that involves a number of items related to demographic information of the participants. These demographic data included age, gender, type of university, current academic level, the most frequent kind of hospital where they clinically trained, and whether they have witnessed registered nurses' performance of NNTs during their clinical training.

The second section was adopted from N4CAST survey (Sermeus et al., 2011) to elicit data about nurses' performance of NNTs. This part consists of seven items which were "Answering phone calls and clerical works", "Transporting of patients within hospital", "Arranging discharge referrals and transportation", "Cleaning patients' room and equipment", "Performing non-nursing care", "Obtaining supplies or equipment", "Delivering and retrieving food trays". Each participant was asked to rate each item based on a 3-point Likert scale as following: never (1), sometimes (2), and often (3). The total score ranged between 7-21.

Regarding the third section of questionnaire, the researcher adopted the Attitude Scale for Nursing Profession (ASNP) which was originally designed by Coban and Kasikci (2011). This tool involves 40 items. The participants were asked to rate each item based on five-point Likert scale according to the degree of agreement as following: "1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree". According to Coban and Kasikci's (2011) recommendations for ASNP use, a total score above 120 point indicates a positive attitude toward the nursing profession. The reliability of ASNP have been established by its original authors and showed high reliability ($\alpha=0.90, p<0.001$).

After the approval from the original authors has been obtained to use, modify, and translate ASNP and NNTs research instruments, the researchers followed the guidelines of world health organization (WHO, 2022) for adopting and translating research tools. Firstly, one of the healthcare providers who has good English language translated the original instrument to Arabic. Then, a bilingual academician who has extensive expertise in scientific research checked the translated instrument for adequacy, conceptual correspondence, and any missing concepts or expressions. After that, an expert in English language back translated the Arabic version of ASNP and NNTs research instruments to English, and no major discrepancies were revealed between both versions.

In order to check the suitability and psychometric properties of the Arabic version of ASNP and NNTs research instruments, the researchers conducted a pilot study recruiting 25 nursing students who met the inclusion criteria. Accordingly, the participants in pilot study revealed that the questionnaire was easily comprehensible, easy to read, and an average of 11 minutes of time was needed to answer the questionnaire. Reliability statistical analysis was performed and showed that Cronbach alpha was 0.83 for ASNP, and 0.81 for NNTs research instrument, which indicated that both research instruments have a good internal consistency.

After obtaining the approval of research ethical committees of Jerash University and the targeted nursing schools, the primary researcher, with assistance of a number of faculties in the targeted universities, approached the potential student participants and explained the nature, purpose, and benefits of the study. Then, each participant was given a copy of the questionnaire along with an envelope, and he/she asked to fill all items and submit it to the primary researcher after completing the questionnaire.

2.4 Data analysis

The researchers used SPSS 22.0 (IBM Corp., Armonk, N.Y., USA) to analyze data. Means, standard deviations (SD), frequencies, and percentages were computed to describe data related to participants' demographic, participants' witnessing of performance of NNTs by registered nurses, and participants' views on the nursing profession. A two-tailed independent t-test was utilized to detect if there are any differences in student participants' views on the nursing profession based on their witnessing performance of NNTs by registered nurses during clinical training.

2.5 Ethical considerations

The study protocol was approved by the Institutional Review Board (IRB), Faculty of Nursing, Jerash University, Jerash, Jordan (Code number: ABR 9-20-21). Furthermore, the researchers informed the eligible participants about their rights of voluntarily participation, withdraw at any time, confidentiality, and privacy. Nursing students who agreed to participate were asked to sign the consent form. In order to maintain anonymity, all study participants were asked not to write their names and academic numbers or any other identifying information on the questionnaires. Additionally, participants were informed that all completed questionnaires will be placed in a locker in the researcher's office over the study period, to maintain the confidentiality.

3. Results

3.1 Participants' characteristics and experiences

A total of 409 nurse students participated in this study. The mean age of them was 21.1 years old. About 60% of student participants were female. One hundred and sixty-three participants (39.9%) were in their fourth academic year. About 57% of student participants were from private universities. More than three-quarters of the participants have trained in governmental hospitals. One hundred and ninety-six (47.9%) nursing students reported witnessing performance of NNTs by registered nurses during their clinical training.

3.2 Descriptive data on NNTs

The results of this study revealed that the most commonly NNTs performed by registered nurses was "Answering phone calls and clerical tasks" (M=2.34). The complete list of NNTs were shown in Table 1 in a descending order based on the frequency of occurrence.

Table 1. Descriptive data on NNTs (n=196)

Item	Mean	SD
Answering phone calls and clerical works	2.34	0.664
Transporting of patients within hospital	2.23	0.637
Arranging discharge referrals and transportation	2.09	0.752
Cleaning patients' room and equipment	1.91	0.729
Performing non-nursing care	1.91	0.763
Obtaining supplies or equipment	1.83	0.692
Delivering and retrieving food trays	1.67	0.684

3.3 Attitudes of participants who did not witness performance of NNTs

The results demonstrated that the average total score of student participants who did not witness performance of NNTs on ASNP tool was 157. This indicates that participants had a positive attitude toward the nursing profession (>120). Regarding ASNP items, the item of "I think nurses are indispensable members of the health staff" was rated in the top position by student participants with a mean score of 4.79 out of 5. On the other hand, the item "Nursing is a not considered as an exhausting profession" was rated in the last position with a mean score of 1.05 out of 5. The top and least five items as rated by student participants who did not witness performance of NNTs by registered nurses were shown in Table 2.

3.4 Attitudes of participants who witnessed performance of NNTs

The results of this study demonstrated that the average total score for student participants who witnessed performance of NNTs on ASNP tool was 154. This indicates that participants had a positive attitude toward the nursing profession (>120). Regarding ASNP items, the item of "Nursing requires a lot of patience" was rated first by student participants with a mean score of 4.73 out of 5. On the other hand, the item of "Nursing is a not considered as an exhausting profession" was rated in the last place with a mean score of 1.84 out of 5. The top and least five rated items as viewed by student participants who witnessed performance of NNTs were shown in Table 3.

Table 2. The top and the least five ASNPs as perceived by participants who did not witness performance of NNTs by registered nurses (n = 213)

The Top Five Ranked Items			The Least Five Ranked Items		
Item	Mean	SD	Item	Mean	SD
“I think nurses are indispensable members of the health staff”	4.79	0.439	“Nursing is not considered as an exhausting profession”	1.35	1.051
“I think nursing profession is an indispensable profession for a society”	4.77	0.454	“I think nursing is a cheerful profession”	1.97	1.145
“Nurses should be compassionate”	4.73	0.522	“Nursing can be practiced only by enthusiasm”	2.00	0.847
“Nursing is a profession which requires skills besides knowledge”	4.71	0.453	“I would like my children to become nurses”	2.05	1.308
“I think nurses among all health care personnel communicate the most with patients”	4.63	0.589	“Nursing is preferred as a profession unless I have other choices left”	2.39	1.066

Table 3. The top and the least five ASNPs as perceived by participants who witnessed performance of NNTs by registered nurses (n= 196)

The Top Five Ranked Items			The Least Five Ranked Items		
Item	Mean	SD	Item	Mean	SD
“Nursing requires a lot of patience”	4.73	0.602	“Nursing is not considered as an exhausting profession”	1.84	1.370
“I think nurses are indispensable members of the health staff”	4.72	0.589	“I think nursing profession has reached the state it deserves”	2.11	1.500
“I think nurses among all health care personnel communicate the most with patients”	4.68	0.666	“Nursing is preferred as a profession unless I have other choices left”	2.40	1.174
“I think nursing profession is an indispensable profession for a society”	4.67	0.691	“I would like my children to become nurses”	2.42	1.071
“Nursing is a profession which requires skills besides knowledge”	4.67	0.676	“I think nursing is a cheerful profession”	2.60	1.017

3.5 Differences in attitudes based on witnessing performance of NNTs

The results of this study demonstrated that student participants who witnessed performance of NNTs had significantly lower mean scores on the ASNPs scale than student participants who did not witness (Table 4). On the other hand, no significant differences were found among student participants who witnessed performance of NNTs by registered nurses based on their demographic characteristics (Table 5).

Table 4. The comparison of the attitudes of nursing students who witnessed and who did not witness performance of NNTs by registered nurses (n=409)

	Nursing students who witnessed performance of NNTs (n=196)		Nursing students who did not witness performance of NNTs (n=213)		t-test
	Mean	SD	Mean	SD	
Attitudes toward the nursing profession	154.35	17.469	157.35	12.163	-2.028**

* NNTs: Non-Nursing Tasks; ** $p < 0.05$

Table 5. The comparison of ASNP scores based on demographic characteristics of participants who witness performance of NNTs (n=196)

Characteristic	f(%)	F/t	p	Mean	SD
Gender		-2.00	0.088		
Female	99 (50.5)			154.2	20.5
Male	97 (49.5)			150.3	14.7
Type of University		1.89	0.075		
Governmental	81 (41.3)			158.1	19.1
Private	115 (58.7)			155.8	16.2
Academic Year		3.32	0.102		
2nd year	50 (25.5)			153.5	24.2
3rd year	43 (21.9)			154.8	20.3
4th year	103 (52.6)			157.4	13.2
Training site		-1.79	0.081		
Governmental Hospitals	131 (66.8)			152.8	19.0
Private Hospitals	65 (33.2)			157.5	13.4

4. Discussion

The aim of this study was to investigate the impact of witnessing performance of non-nursing tasks by registered nurses on nursing students' attitudes toward the nursing profession. Approximately half of student participants in the current study revealed that they have witnessed performance of NNTs by registered nurses during their clinical training. This disquieting prevalence of NNTs might be stemmed from the inadequate support services particularly in public hospitals in Jordan, which might compel registered nurses to engage in activities out of the scope of the nursing practice. On the other hand, although the prevalence rate of NNTs among registered nurses sounds alarming, it is lower than previously reported in recent study carried out by Grosso et al. (2019) who demonstrated that 94.5% of registered nurses performed NNTs. The relatively lower prevalence of NNTs in the current study in comparison to previous studies, might be attributed to the limited awareness of nursing students of all nurses' activities in clinical areas, particularly in areas where students' training is uncommon such as outpatient departments.

In line with many previous studies (Bekker et al., 2015; Kearney et al., 2016), the current study revealed that answering phones and clerical works and patients' transportation within hospitals were considered as the most commonly performed NNTs by registered nurses. These findings might be attributed mainly to labor resources, as indicated by a recent study conducted by Al-Faouri et al. (2020) which revealed that inadequacy of clerical employees, patient transporters, and other assistive staff has a significant contribution to high prevalence of performing NNTs by registered nurses and high level of missed nursing care (Al-Faouri et al., 2020). Furthermore, a conceptual study conducted by Freitas et al. (2022) revealed that answering phone calls was deemed as considerable contributing factor to the concept of "interruption in the work of nursing personnel" and was found to affect the attention and concentration of registered nurses during performing caring interventions to their clients, and thus increasing the frequency and severity of malpractice, negligence, and medications errors.

Transporting clients in the hospitals was perceived as the second most frequent NNTs which were performed by registered nurses. This finding might be unsurprising, since that the registered nurses were actively participate in intrahospital transportation professional activities including planning, clients' preparation, equipment preparation, clients' evaluation and monitoring, and evaluation of intrahospital transportation process (Alamanou & Brokalaki, 2014; Khan et al., 2021). Many previous studies found that engagement of well-prepared and experienced nurses in intrahospital client's transportation process, had a significant contribution in preventing many life-threatening complications and events (Sharafi et al., 2020). However, and due to the shortage of porters and other assistive staff, registered nurses in Jordan tend to directly transport and move clients through the hallways in the hospitals, and this might adversely affect time and efforts

allocated to professional aspects of clients' transportation such as clients' preparation and monitoring.

The findings of the current study showed that student participants who did not witness performance of NNTs by registered nurses had significantly more positive attitudes toward the nursing profession than those who witnessed performance of NNTs. However, the overall attitudes of both groups were positive. This was consistent with the results of prior studies (Ayasreh & Khalaf, 2020; Sorio & Hatamleh, 2017). Participating nursing students in the current study placed high value on nursing profession and nurses' contribution in health care processes, and this was apparent in the study's findings as both groups of nursing students perceived nursing profession as indispensable profession for a society. This is consistent with the findings of a recent study carried out by Ayasreh and Khalaf (2020). This might be ascribed to the distinctive dynamic attribute of nursing job which demands from nurses to be on the direct encounter and spend longer times with the clients (Berlanda et al., 2019; Kim, 2020).

5. Implications and limitations

Performance of non-nursing tasks was shown to have a negative impact on how nursing students view nursing profession. Therefore, it is recommended to enhance nursing students' preparedness to the clinical training in health care institutes, through provision of orientation programs about nursing tasks and how these tasks are distinguished from physicians', other health care providers', and service workers' tasks. Furthermore, it is recommended that nurse managers adopt or develop strategies for monitoring nurses' activities, and to reallocate nurses' efforts and time to nursing caring tasks to decrease the rates of missed nursing care and improve clients' outcomes.

The main limitation of this study was the use of convenience sampling technique. Use of nonprobability sampling does not guarantee that all characteristics of participants were well distributed in both groups. However, there was great practical difficulty to employ random sampling technique for recruiting study sample. Despite the limitation, this study is the first research work that highlighted the relationship between performance of non-nursing tasks and nursing students' attitudes toward nursing profession. Furthermore, this study highlighted nursing student' viewpoints, up on which both academic and professional nursing authorities should act to improve nursing students' professional identity and loyalty.

6. Conclusion

Around half of student participants witnessed performance of NNTs by registered nurses during clinical training. Performance of NNTs had a significant effect on nursing students' attitudes toward nursing profession. Appropriate measures should be prior to clinical training to enhance nurse students' awareness about professional scope of nursing profession. Further research, particularly qualitative research is recommended, to understand the contextual factors and consequences of non-nursing tasks as experienced by both nursing staff and nursing students.

Acknowledgment

The researchers would like to appreciate all student participants who volunteered in this study. Furthermore, they would thank all nursing faculties who assist the researchers in recruiting study participants.

Author contribution

IA: Conceptualization, Methodology, formal analysis.

FH: Writing, reviewing, and editing.

RAA: Investigation, validation.

Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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