The nurse professional competence scale: Self-reported professional competence among newly graduated nursing students in Saudi Arabia

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ABSTRACT

Background: Nursing students should develop sufficient professional competence during their nursing education as a prerequisite for providing safe care of high quality utilizing a holistic approach that suits the caring context of their patients. Despite the abundance of studies on professional competence in international literature such as the Scandinavian countries, there are no studies conducted in the Middle East in general and in Saudi Arabia in particular. **Aim:** The current report is part of a larger study that assessed the self-reported professional competence of newly graduated nursing students in Saudi Arabia. **Setting and Design:** A cross-sectional correlational study was carried out with a convenience sample of 317 senior Saudi students at the point of graduation from a nursing college affiliated with a public university in Saudi Arabia. **Materials and Methods:** Data was collected using the Nurse Professional Competence (NPC) Scale – a short version consisting of 35 items and the 10-item General Self-Efficacy (GSE) Scale. **Statistical Analysis:** The mean scores were calculated for the competency areas, and the median score and interquartile were used for nonparametric variables that were not normally distributed (Shapiro–test). The Chi-square test for data between groups, the Kruskal–Wallis test for comparing more than two independent groups, and Mann–Whitney U-test for comparing two independent groups. In addition, Spearman correlation coefficients to test correlations between groups and the NPC Scale. **Results:** Students scored highest in the competence areas of nursing care, value-based nursing care, and care pedagogics and lowest scores in the areas of documentation and administration of nursing care, development, leadership and organization of nursing care, and medical and technical care. Professional competence was significantly associated with students' quality of health and GSE. **Conclusion:** It is important to incorporate competencies in the nursing program and to assess newly graduated students' competence upon graduation. We suggest a follow-up study of these graduates to assess the development of professional competencies and self-efficacy across their internship years.

Keywords: Newly graduated nursing students, Nurse Professional Competence Scale, professional competence, Saudi Arabia, self-efficacy

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INTRODUCTION

Nursing education aims to prepare and equip nursing students worldwide with the knowledge, attitudes, and skills needed to commence working as registered nurses (RNs).[1] The Kingdom of Saudi Arabia (KSA), similar to other countries in the world, has suffered a shortage of nurses for a long time. According to the Ministry of Health (2018) figures, the number of nurses in KSA totaled around 184,656, mostly expatriates. Saudi nurses comprised a little more than a third of these nurses (38%).[2] In 2019, there was 58.2 nurse/10,000 populations.[2-4]

Hiring expatriate nurses was a solution for many decades when the dependency on foreign nurses remains high. At the same time, KSA has exerted great efforts to increase local capacity to become less reliant on the international workforce; something that is in line with the Saudization is defined as a process aiming at substituting the expatriate staff with locally educated RNs.[5,6] An integrative review highlighted the ongoing challenges that face the nursing profession in KSA and elaborated on the literature discussing the need for the Saudization process.[7] This process emerged from the awareness that if the country depended continually on hiring an expatriate workforce, an imminent risk would be expected if a large number of these expatriates decided to quit and leave the country at a certain point in time.

The rate of hiring Saudi healthcare providers is insufficient because there are too few to hire.[8-11] The training of Saudi nurses was reported to be less than the international scales of nurses' preparation, mainly because of the long history of easiness in hiring nurses from all over the world. These nurses usually possess high competencies, distinct experiences and are a well-trained workforce who are available, ready to work, and willing to join for better job opportunities and benefits. Consequently, this might have exerted a few motivations to prepare more nurses. At the same time, with the intensive scholarship program offered to graduates of nursing schools, the Saudi graduating nurses chose to go abroad and study for their higher education in nursing in developed countries such as USA, Canada, UK, or Australia.[12]

To meet the shortage of RNs, the Ministry of Education (MoE) has established several governmental and private universities that provide nursing education in conjunction with an accelerated scholarship program.[13]

Nursing education in the KSA has gone through drastic developments in the way to preparing professional nurses who are qualified in providing good nursing care for their patients; care that is individualized, safe, and of high quality. Nurses need to have appropriate competence levels to effectively achieve a holistic approach that suits the caring context of their patients. Aljohani highlighted the need to increase the attention given to nursing education and to focus on promoting local programs aimed at preparing competent nurses who can substitute the expatriate staff.[14] Alomran *et al.* and his associates reported that there are around 13,862 Saudi registered BSc nurses (RNs) who are currently employed in the KSA.[15] Currently, there are around 17,000 students (76% females and 24% males) enrolled in the BSc programs. In addition, based on the Ministry of Education Report (MoE, 2019) reports, all nursing programs have been designed to take place over 4 years of academic study and are followed by 1 year (52 weeks) of an internship program organized and monitored by the university in which the student has enrolled.[16] The internship program comes after completing the coursework and is aimed at consolidating the nursing practice competencies. At the end of the internship year, the interns have to pass the Saudi Nursing Licensing exam to be qualified to practice as RNs.[14]

This study aimed to investigate the relationship between self-reported competencies, socioeconomic background factors, health status, and self-efficacy among newly graduated nursing students (NGNs) completing their nursing education toward the bachelor's degree, using the Nurse Professional Competence (NPC) Scale short version.

MATERIALS AND METHODS

Study design and setting

This study is part of larger longitudinal study with 3-time points or repeated measure design. The first part, the time one data collection, utilized a cross-sectional design and incorporated a correlational design that involved collecting data from a group of participants at a certain point in time.[17] A questionnaire was used with newly graduated nurses (NGNs) at two colleges of nursing affiliated with one public university in KSA. The colleges are in the Western and Eastern regions of the country. The number of students on these campuses totaled around 1000. In all regions, the students at these colleges are enrolling and graduating at two intervals to start their internship program in September or March of the academic year. The participants represent 2 semester enrollments, 51.1% from September group and 48.89% from March group. The College of Nursing, the setting of this study, adopted in its curriculum the conceptual framework inspired by some concepts of Jean Watson's "Theory of Human Caring" with the integration of Saudi religious principles, culture, and community identity.[18]

Sampling

The participants in this study were selected using a convenience sample of NGNs at two nursing colleges in KSA. Eligible for participation were NGNs who met the inclusion criteria of having completed the nursing program but had not yet started their 1-year internship program and who did not work as RNs yet. Before beginning the internship

program, all graduating students should attend an orientation program at the college in collaboration with the hospitals to be acquainted with the program. All attending students were asked to join the study and signed the informed consent after explaining the purpose of the study and the questionnaire structure. No one was excluded and those who agreed to join were involved in the study. In total, 317 (out of 373) NGNs participated in the study by responding to the questionnaire, i.e., a response rate of 85%.

The questionnaires

The questionnaire includes: (1) The NPC Scale – Short version 35-items, (2) The General Self-Efficacy (GSE) Scale, and (3) Socioeconomic background information. All students have a good command of English and must pass the English proficiency test of 75% before they start their internship. Therefore, there was no need to translate the questionnaire as the English versions could be used. All students were able to read and write in English at an acceptable level of English proficiency.

The Nurse Professional Competence Scale – Short version 35-items

The NPC Scale – Short version was developed by Nilsson *et al*. to assess nursing students and nurse's self-reported professional competence and consists of 35 items distributed in six competence areas (CA).[19] The NPC Scale – Short version originates from the original 88-item version[20] and has shown satisfactory results in terms of psychometric properties.[19,21] The factors of the original 88-item NPC Scale were also reflected in the NPC Scale-Short form (SF) 35-items with a 0.75–0.94 Cronbach's alpha coefficient. In the original NPC Scale, factors 1 and factor 7 had alpha coefficients above 0.90, indicating that the number of items could be decreased while keeping the concept intact. The alpha coefficients in the 35-item NPC Scale-SF were all between 0.71 and 0.86, which indicated that the number of items was satisfactory.[19]

This scale was used previously by 541 nurses in the KSA, and showed good reliability with Cronbach's alpha ranging from 0.71 to 0.86 for subscales and a 0.98 overall scale reliability.[22] In the current study, the tool has very good reliability, ranging from 0.84 to 0.89. Table 1 displays the different CAs, the number of items, and their Cronbach's α-values for the present study. Self-reported competences in each of the 35 items was stated on a scale with four response alternatives: 1 = To a very low degree, 2 = To a fairly low degree, 3 = To a fairly high degree, and 4 = To a very high degree. The score of 1–4 has been recalculated to a score of 1–100 according to the manual for the NPC Scale. The higher score, the higher the competence.

The General Self-Efficacy Scale

Self-efficacy was measured using the English version of the 10-item GSE Scale.[23-26] The 10 items are rated on a 4-point Likert scale with the following response alternative: 1 = Not

at all true, 2 = Hardly true, 3 = Moderately true; 4 = Exactly true for a minimum score of 10 and a maximum of 40, where higher scores indicate a higher level of self-efficacy. The GSE Scale in this study has good reliability of Chronbach's alpha (0.84).[27]

Socioeconomic background information

The NGNs were asked about socioeconomic background information such as age, marital status, number of children, living situation and family type, grade point average (GPA), and graduation semester. In addition, the NGNs were asked to indicate, on a scale of 0–10, how they perceive or rate their personal health in contrast to their peers and their readiness to start the internship year (e.g., not ready at all to very ready). In addition, they were asked to indicate their preferred clinical area during the 1-year internship program. Finally, the NGNs were asked if they would recommend the nursing program to others by responding to the question on a scale ranging from 1 (would not recommend), 2 (would probably recommend), and 3 (would definitely recommend) the program.

Data collection

After securing the ethical approval for the study, a letter of information was provided to potential participants with the questionnaire. The participants were invited to join the study by individually filling out the questionnaire and returning it in a sealed envelope and box. After receiving the questionnaires, they were coded, entered into the computer program by the first author, and securely stored in the researcher's office.

Data analysis

Data were described with descriptive statistics, checked for normality using the Shapiro test, and then analyzed with inferential statistics using the SPSS Statistics 20.0 by IBM for Windows (SPSS Inc., an IBM Company, Chicago, IL, USA). Statistical significance was set at $P = 0.05$. Mean scores were calculated for the CAs; the higher the score, the higher the perceived competence. Median score and interquartile were used for nonparametric variables that were not normally distributed (Shapiro–test, $W = 0.9588$; $P = 0.0001$). These included demographic backgrounds, self-reported health, readiness to start the internship-training program, self-efficacy scale, and the NPC Scale data. Comparisons of proportions of data between groups were calculated using the Chi-square test. Kruskal–Wallis test (used when comparing more than two independent groups) and Mann–Whitney U-test (used when comparing two independent groups) were applied. Correlations between groups and the NPC Scale data were done using Spearman correlation coefficients such as GPA, age, number of children, quality of health, patient safety, optimal quality of care by health professionals, and optimal quality of nursing care.

Ethical considerations

The institutional review board of the intended university approved the study design and procedures. Permission was

obtained from the Swedish NPC Research group to use the NPC Scale in the present study. The study was explained to the participants and written informed consent was obtained from all participating students who volunteered and indicated a willingness to participate. The study was conducted following the regulations of the World Medical Association Declaration of Helsinki (originally adopted in 1964). A local ethics committee reviewed and approved the study (No. RJ17/021/J) assuring that participants' identity is protected. They were asked to indicate if they agree to join the study through different stages of the program by filling out the questionnaire three times in the program.

RESULTS

Characteristics of the participants

The mean age of the NGNs was 22.74 years, ranging from 20 to 28 years, and all of the participants were women. The majority of students (66.2%) were living with parents and under-aged children, 11.4% lived together with another adult and under-aged child, 8.8% lived together with another adult/colleague, and the rest were living alone and with other people. All of participants were graduates of high schools as a requirement of the Ministry of Higher Education for college enrollment. Of those, 91% were from Stream 1, enrolling directly from high school, and the remaining was from Stream 2 with a nonnursing university degree after their high school graduation before joining the nursing college [Table 1].

Looking at their GPA, the average GPA was 3.68/5 (standard deviation [SD] =0.58), where almost half the students (48.9%) were in a Good rank, (38.5%) in the very good rank, 7.9% in the excellent, and 4.7% in the passing rank at graduation time (2.75–3.749). More than two-thirds (68.5%) of them have never married, 30% were married with an average of 1.4 children, and the rest was divorced. The median score on self-reported health in comparison to their fellow students was 8 (mean ± SD: 7.66 ± 1.92) on a scale ranging from 1 (to a very low degree) to 10 (to a very high degree) with 57.1% above and 42.9% below the median.

Readiness for the internship-training program and preferred clinical area

Participants were asked on a scale from 1 (to a very low degree) to 10 (to a very high degree) if they were ready to start their required 1-year internship-training program. The average score response was (mean ± SD: 7.25 ± 1.97). The median score was 7 out of 10, with 66.6% above and 33.4% below the median. About 21% of them scored at level 7 of readiness, and around 67% scored above 7. About 34% of the students scored below 7, indicating lower level of readiness to begin the internship program.

Graduating students were asked which clinical area they preferred to be trained in during the internship-training program. Students can indicate more than one area if they wish. The largest top 5 areas of selection were emergency room (51%), maternity/gynecology area (50%), the operating room (35.3%), the surgical area (34.4%), and primary health care (27.1%). The least selected areas were psychiatric nursing (12.4%) and management areas (13.9%) [Table 2].

Self-reported professional competence

Table 3 shows the self-reported competence among NGNs. The overall competence means the score was 78.4. The CA with the highest mean scores were "Value-Based Nursing Care" (mean = 80.23) and "Care Pedagogics" (mean = 80.11). Meanwhile, the lowest mean scores were given to "development, leadership and organization of nursing care" (mean = 75.80) and "medical and technical care" (mean = 76.83).

Looking at the NGNs' rating of their competence on individual items, the highest and lowest ratings are shown in Table 4. The highest mean score was given to items related to care Pedagogics, nursing care, and value-based nursing care. The lowest mean score of items ratings was given to items that fall in the CA of development, leadership, and organization

Table 1: Description, reliability, mean, and standard deviation of the nurse professional competence Scale–Short version 35-item, and its six competence areas (*n*=317)

CAs	Number of items	α-values	Mean±SD
CA2-Value-based nursing care	5	0.89	80.23±17.63
CA4-Care pedagogics	5	0.89	80.11±17.40
CA1-Nursing care	5	0.87	80.00±17.13
CA5-Documentation and administration of nursing care	8	0.87	78.31±15.11
CA3-Medical and technical care	6	0.87	76.83±17.65
CA6-Development, leadership and organization of nursing care	6	0.84	75.80±16.07

SD: Standard deviation, CAs: Competency areas

Table 2: Newly graduated nursing students' preferences of the clinical area to be trained in (*n*=317)

Clinical area	Yes, *n* (%)	No, *n* (%)
ER	162 (51.1)	154 (48.89)
Maternity/obstetrics and gynecology	161 (50.8)	155 (4921)
OR	112 (35.3)	205 (65.08)
Surgical	109 (34.4)	207 (65.71)
Primary healthcare	86 (27.1)	231 (73.33)
Medical	84 (26.5)	232 (73.65)
Pediatrics	81 (25.60)	235 (74.60)
Education	69 (21.8)	246 (78.10)
Ambulatory (outpatient)	67 (21.1)	249 (79.05)
Specialized care units	61 (19.2)	254 (80.63)
Management	44 (13.9)	271 (86.03)
Psychiatric	41 (12.39)	276 (87.62)
Other areas	26 (8.2)	289 (91.75)

ER: Emergency room, OR: Operating room

Table 3: Self-reported competence in relation to background factors among newly graduated nursing students (*n*=317)

Background factors	*n* (%)	CA1	CA2	CA3	CA4	CA5	CA6
Age (years), mean±SD	22.74±1.37						
20-22	50.80%	80.19	80.69	77.54	80.28	78.77	76.18
23-28	49.90%	79.81	79.78	76.12	79.94	77.84	75.43
Student's unpaired *t*-test		NS	NS	NS	NS	NS	NS
Marital status							
Never married	217 (68.50)	80.16	80.63	77.17	80.63	78.97	75.95
Married	100 (31.50)	79.65	79.40	76.12	79.00	76.91	75.50
Student's unpaired *t*-test		NS	NS	NS	NS	NS	NS
Living situation							
Living alone	16 (5.0)	77.5 (17)	82.4 (17.5)	81.25 (25)	85 (17.50)	75 (18.75)	79.16 (14.58)
Living with parents and under-aged children	210 (66.2)	84 (25)	85 (25)	79.16 (25)	85 (25)	81.25 (25)	77.08 (22.91)
Living together with another adult/colleague	28 (8.8)	75 (45)	77.5 (45)	75 (41.66)	75 (30)	71.87 (25)	70.83 (33.33)
Living together with another adult and under aged children	36 (11.4)	80 (25)	80 (25)	75 (25)	85 (27.5)	75 (18.75)	75 (18.75)
Living with other people	27 (8.5)	80 (45)	85 (25)	79.16 (37.5)	85 (40)	75 (25)	75 (25)
P value Kruskal–Wallis test		NS	NS	NS	NS	NS	NS
Children numbers, if married: (*n*=100)							
Spearman correlation *r*		−0.125	−0.036	0.002	0.013	−0.036	−0.010
P		NS	NS	NS	NS	NS	NS
Stream							
Stream 1	287 (90.50)	80 (30)	80 (25)	75 (20.83)	80 (25)	78.21 (21.87)	75 (20.83)
Stream 2	30 (9.50)	90 (15)	95 (10)	87.50 (18.24)	90 (15)	87.5 (18.75)	83.33 (20.83)
P value Wilcoxon test		0.0165	0.0186	0.0315	NS	NS	NS
GPA (mean±SD)	3.68±0.58						
Excellent (≥4.50)	7.9%	100 (25)	90 (25)	79.16 (29.16)	85 (35)	84.37 (25)	83.3 (29.16)
Very good (3.75-4.499)	38.5%	80 (30)	85 (20)	79.16 (25)	85 (25)	81.25 (18.75)	79.16 (20.83)
Good (2.75-3.749)	48.9%	80 (30)	80 (30)	75 (25)	80 (30)	75 (21.87)	75 (20.83)
Pass (2.00-2.749)	4.7%	80 (20)	85 (30)	87.5 (29.16)	85 (25)	84.37 (21.87)	83.3 (25)
P value Kruskal-Wallis test		0.0253	0.0196	NS	NS	0.0484	NS
Graduation semester (*n*=317)							
March (*n*=155)	155 (48.89)	77 (17)	77 (18)	75 (17)	77 (18)	76.25 (15)	73 (16)
September (*n*=162)	162 (51.10)	83 (16)	83 (17)	79 (18)	83 (17)	81.25 (15)	78 (16)
P value Mann-Whitney *U*-test		0.004	0.000	0.013	0.001	0.001	0.007
Readiness to start internship, mean±SD	7.25±1.97						
Below median (1-6)	106 (33.4)	80 (25)	80 (30)	75 (20.83)	80 (25)	78.12 (21.87)	75 (25)
Above median (7-10)	211 (66.6)	85 (30)	85 (30)	79.16 (25)	85 (25)	78.12 (25)	79.16 (25)
P value Wilcoxon test		NS	NS	NS	NS	NS	NS
Quality of health, mean±SD	7.66±1.92						
Below median (1-7)	136 (42.9)	75 (25)	80 (27.5)	70.83 (20.83)	75 (25)	75 (25)	75 (25)
Above median (8 and above)	181 (57.1)	85 (25)	85 (25)	83.3 (25)	85 (25)	81.25 (21.87)	79.16 (25)
P value Wilcoxon test		0.0008	0.0002	<0.0001	0.0169	0.0002	0.0001
Self-efficacy scale, mean±SD	30.37±5.65						
Spearman's rank correlation *r*		0.372	0.379	0.365	0.374	0.365	0.412
P value using Spearman's correlation		0.000	0.000	0.000	0.033	0.000	0.000
Recommending the nursing program							
Would not recommend	28 (8.8)	77.5 (25)	77.50 (20)	75 (29.16)	85 (25)	75 (25)	75 (27.08)
Would probably recommend	149 (47)	75 (25)	77.5 (27.5)	75 (25)	75 (25)	75 (21.87)	75 (20.83)
Would definitely recommend	140 (44.2)	85 (25)	90 (25)	83.3 (25)	90 (25)	87.50 (18.75)	83.33 (20.83)
P value Kruskal-wallis test		0.0001	<0.0001	0.0003	0.0001	<0.0001	0.0001

*The higher the score, the better the self-reported competence (i.e., 100="To a very high degree"). All the numbers are Median (interquartile). CA1: Nursing Care, CA2 : Value-Based Nursing Care, CA3: Medical and Technical Care, CA4: Care Pedagogics, CA5: Documentation and Administration of Nursing Care, CA6: Development, Leadership and Organization of Nursing Care. SD: Standard deviation, CA: Competency area, GPA: Grade point average, NS: Not significant

of nursing care, documentation and administration of nursing care, and medical and technical care.

Professional competence and background factors

Several significant associations were found among self-reported professional competence and the following background factors: Stream, GPA, graduating semester, quality of health, and GSE [Table 1]. A positive significant association was found between all NCP CAs and self-efficacy, graduation semester, and perceived quality of health. None of the CAs was associated with other variables, including age, living situation, marital status, number of children, and readiness to start the internship program. Moreover, students' GPA was related to 3 CAs, including CA1, CA2, and CA5.

Self-reported overall quality of the bachelor of science in nursing (BSN) program

Graduating students were asked to report on their nursing program quality as indicated by their choice of whether or not they would recommend it to anybody else who wishes to join in the future. About 44% (n = 140) of students indicated that they "would definitely recommend it." Around half of the students (n = 149, 47%) reported that they "would probably recommend it." Only 8.8% of the students said that they "would not recommend the nursing program they attended to another person. The self-reported overall competence and all CAs were significantly associated with the self-reported overall recommendation of the nursing program by graduating students (P = 0.0001) [Table 1].

DISCUSSION

The aim of this study was to investigate the relationship between self-reported competencies, socioeconomic background factors, health status, and self-efficacy among newly graduated nursing students who have completed their nursing education towards the bachelor's degree using the NPC Scale Short version. The NPC scale has been used by nurses and nursing students indifferent European countries.[19,21] Currently, the instrument has been used among nurses in the KSA as well.[22] Overall, the tool shows good

reliability in different European populations and the current study setting.[19]

Newly graduated nursing students self-reported competence

The mean scores of the six CA showed the highest scores in "nursing care," "value-based nursing care," and "care pedagogics." Furthermore, students rated items related to the above-mentioned CAs as the top highest items. These are not surprising given the fact that the curriculum of this college is based on Watson's Caring Theory, where all theoretical courses and practical training are centered on caring concepts. The college's vision is to graduate highly competent nurses, leaders, researchers, and scholars who are grounded in a sense of human caring and committed to its principles. Students start their "Fundamentals of Nursing" course emphasizing caring theories and move on with other courses that utilize caring concepts. Most of these courses aim to implement the core values of the college as "Quality and excellence," "Teamwork," "Competency, proficiency," and "Client-centered caring." These values highlight that the holistic views in caring for all patients and clients are engraved in the practice models implemented in training nursing students.

Relationship between self-reported competencies, socioeconomic background factors, health status, and self-efficacy

Students who are accepted into the college of nursing go through two preprofessional years of study. Once they finish all requirements, which take place in the Fall Semester (September), they move to the professional years in which they study the courses toward the degree. When students have to repeat some courses or do not achieve the requirements during the fall semester, they join later in the Spring Semester (March). These students are considered lagging and generally have less achievement than regular students. When they graduate, they also start the internship program in two different periods (September and March).

The overall GPA for the regular students is also higher than lagging students. The study supported the notion that the

Table 4: Items scored highest and lowest by newly graduated nursing students (*n*=317)

Highest self-rated nurse professional competence			Lowest self-rated nurse professional competence		
Item	Content	Mean±SD	Item	Content	Mean±SD
21	In dialogue motivate the patient to comply with treatments (CA4)	81.4±20.00	30	Act adequately in case of unprofessional conduct by staff (CA6)	70.2±21.84
20	Make sure that the patient and next of kin understand the information provided (CA4)	81.4±20.00	35	Supervise and train co-workers/staff (CA6)	73.7±24.08
4	Document the patient's physical condition (CA1)	81.4±21.44	24	Carry out documentation according to current legislation (CA5)	74.0±22.87
9	Show openness to and respect for different values and faiths (CA2)	80.8±21.33	12	Independently administer prescriptions (CA3)	74.9±22.81
8	Utilize the knowledge and experience of the patient and/or their next of kin (CA2)	80.5±21.44	13	Question unclear instructions/prescriptions (CA3)	75.2±24.68

SD: Standard deviation, CA: Competency area

regular students reported significantly higher competence scores than lagging students. In addition, the graduates with higher GPAs reported higher significant scores in several CAs including "Nursing Care," "Value-Based Nursing Care," and "Documentation and Administration of Nursing Care." We suggest that the curriculum in the educational nursing programs needs to put more emphasis on these items and incorporate them into different teaching-learning activities offered for students.

The present study also showed that students' self-assessed health status and self-efficacy were associated with self-reported professional competence. This finding is interesting, as it has been reported that health-promoting universities are beneficial in terms of improving students' academic performance, as healthier students are better learners.[28,29] Interestingly, the results showed that one-third of the students reported having low readiness to begin their internship program. This finding is considered a significant aspect in planning training experiences and has important implications for future research and for planning nursing education that focuses on students' readiness for the internship.

This is the first study to assess the competence of newly graduated nursing students from Saudi Arabia. It is per Saudization and could be used for quality improvement for benchmarking their performance and comparing with the rest of the world as the NPC Scale is used on a global level.

Limitations
The study is limited by the use of a self-reported questionnaire. Students might have given the answer that they believe is more socially acceptable rather than their ability. In addition, they may not be able to evaluate themselves appropriately because of their lack of reflective abilities as new graduating students. The headline of the NPC Scale was "do you think you have the ability to…"

CONCLUSIONS AND RECOMMENDATIONS

The Curriculum that is based on caring theory might reflect on the nursing student scoring high in "Nursing Care," "Value-Based Nursing Care," and "Care Pedagogics." As regular students reported significantly higher competence scores than lagging students, more attention should be placed on developing these students' competencies through special programs to bring them to a higher competency level similar to their counterparts. Furthermore, the newly graduated nursing students with higher GPAs reported higher significant scores in several CA.

Despite the well-searched topic of competency in different countries as the European countries, there is a gap in research related to this topic in the Mediterranean region as a whole. As this is the first study in the KSA to assess

newly graduated nursing students' competence, it provides an opportunity for quality improvement and support for the caring-theory-based curriculum. The authors suggested a follow-up study of these graduates to assess the development of professional competencies and self-efficacy across their internship year.

Conflicts of interest
There are no conflicts of interest.

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