PREDICTION OF THE BURNOUT LEVELS OF NURSING STUDENTS BY THEIR ACADEMIC SATISFACTION LEVELS

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ABSTRACT

Purpose: This study was carried out to determine the extent to which the academic satisfaction of nursing students predicted their burnout levels.
Methods: This is a descriptive study**.** The sample consisted of 424 nursing students. Data collection tools were developed by the researchers by reviewing the literature. In the study, a Socio-Demographic Characteristics Questionnaire, a Faculty of Education Student Satisfaction Scale, and the Maslach Burnout Inventory-Student Survey were used.
Results: Results indicated that 71% (n = 301) of the students were female, 62.5% (n = 265) were in the 20-23 age group, 57.5% (n = 244) had selected nursing voluntarily, 63.9% (n = 271) were currently satisfied with their department, and that 77.1% (n = 327) had future unemployment concerns. Also, the burnout levels of nursing students were determined to be affected significantly by the attitudes of the instructors (β = -0.177), the satisfaction levels explained 13.8% of the depersonalization levels, and the accomplishment level was significantly affected by the course and the syllabus (β = 0.102).
Conclusion: The satisfaction of nursing students with the institution and education was determined to reduce their burnout levels significantly.

Keywords: Nursing students, academic satisfaction, burnout, nursing education

INTRODUCTION

Investigation of the factors that determine the success and life satisfaction of university students is gaining a growing importance today. Ensuring the satisfaction of university students with life, who grow up as the assurance of the future, is an important goal (1). Universities aim to be preferred by students consistently and to rank at the top levels in university rankings by maximizing student satisfaction and minimizing dissatisfaction (2). With the quality education service, the qualifications of graduates increase, and they can find employment more easily (3). For a high level of quality in education, it is necessary to successfully achieve outcomes such as knowledge, capacity, and skills. Student satisfaction and dissatisfaction may depend on meeting the expectations in these areas (3, 4). Also, demographic and psychologic factors are thought to be effective in university students' life satisfaction and academic success (5).

Nursing students are exposed to many stress factors during their education because, during their education, they frequently encounter death in health institutions, they have a heavy workload, they work in risky environments threatening human life, they are in contact with too many people, they have time

pressure, and they often use technological devices (4-6). Students may experience burnout if they are not good at coping with some compulsory tasks such as attending to lessons, fulfilling course duties, and passing the exams (7).

Maslach and Jackson (1981) define burnout as a syndrome with physical, mental, psychological dimensions, including negative attitudes, which emerge in the individual with feelings of physical exhaustion, prolonged fatigue, despair, and hopelessness (8). Individuals working under intense stress and pressure cannot meet their emotional expectations and those of other people, they become insensitive to their environment, and they start perceiving other people whom they interact with as an object. Also, they may be distant, careless, and cynical towards the institution. They experience an intense feeling of failure by thinking that they work under strict rules and that other people will always be evil to them. Individuals who are emotionally and physically exhausted and have negative attitudes towards themselves and other people have a decreased sense of individual accomplishment because they cannot fulfill the demands required by their jobs (7-9).

Burnout may be observed in students who have low student satisfaction and poor personal coping skills. Equipping nurses, who are closely responsible for human health, with a high level of knowledge, skills, and capacity by preventing them from experiencing burnout during their education is the primary responsibility of nursing education institutions that aim to provide quality education (4-6). However, the review of the literature shows that there is inadequate research on how nursing students' academic satisfaction affects their burnout levels (10,11). For this reason, this study was carried out to determine how the academic satisfaction of nursing students predicted their burnout levels.

METHODS
The purpose of the study: This study was conducted to determine how the academic satisfaction of nursing students predicted their burnout levels.

Type of the study: This is a cross-sectional study with a descriptive, comparative, and correlational design.

Sample: The study was carried out between March 2018 and May 2019 at a Nursing Faculty in one of Turkey's Western Provinces. The sample included 1st, 2nd, 3rd, and 4th-year students of the Faculty of Nursing. GPOWER statistical software was used for calculating the necessary sample size, and it was determined as 180 students based on 80% power, medium effect size, and 0.05 significance level using the regression analysis on this software. Considering a 10% loss in the study, the sample size was planned to consist of a total of 200 students by determining a number for the sampling weights of each class. Eventually, 424 nursing students who agreed to participate were included in the study.

Data Collection Tools: Data collection tools were designed by the researchers in light of the literature. In the study, a Socio-Demographic Characteristics Questionnaire, a Faculty of Education Student Satisfaction Scale, and the Maslach Burnout Inventory-Student Survey were used.

The Socio-Demographic Characteristics Questionnaire: This questionnaire collects information about the students such as age, gender, school year, place of residence, education level of parents, family type, number of siblings, income, the status of the preference for their current department, the current level of satisfaction with their department, and the future employment concerns.

The Faculty of Education Student Satisfaction Scale (FE-SSS): FE-SSS consists of 40 items. The scale, which analyzes student satisfaction in six dimensions including academic staff, counseling services, management services, resources, computer facilities, courses and syllabus, has a 5-point Likert type evaluation system with options ranging between "Totally dissatisfied" and "Totally satisfied". The internal consistency coefficients (Cronbach's Alpha) for the six sub-dimensions of the scale vary between 0.68 and 0.91 (12).

The Maslach Burnout Inventory (MBI): MBI was first adapted to students by Schaufeli et al. in 1996 (Çapri, Gündüz, and Gökçakan, 2011; Schaufeli et al., 2002/a; Schaufeli et al., 2002/b). The scale consists of 16 items and a Likert type rating structure. It has three subscales such as exhaustion, depersonalization, and accomplishment. The exhaustion subscale consists of 5 items, the depersonalization subscale 5 items, and the accomplishment subscale 6 items. High scores from the exhaustion and depersonalization subscales and low scores from the accomplishment subscale

Table 1. The degree to which the academic satisfaction levels of nursing students predicted the exhaustion subscale of the Maslach Burnout Inventory

Variables	Beta	Standard Error	β*	t**	p
Constant	23.542	1.028		22.909	0.000
Academic staff	-0.177	0.041	-0.311	-4.322	0.000
Counseling	0.133	0.062	0.144	2.157	0.032
Management	-0.051	0.057	-0.069	-0.882	0.378
Resources	0.003	0.046	0.005	0.061	0.952
Computer facilities	-0.071	0.086	-0.049	-0.819	0.413
The course and the syllabus	-0.104	0.075	-0.089	-1.390	0.165
R***	0.363				
R^2****	0.131				
F*****	10.466				
p	0.000				

Abbreviations: *β, Standardized Beta; ** t, t-test value; ***R, correlation co-efficient; **** R^2, R Square; F, ANOVA Value

(scored inversely) indicate burnout. Three separate burnout scores are calculated for each person. The Turkish adaptation and reliability and validity studies of the Maslach Burnout Inventory-Student Survey (MBI-SS) were conducted by Çapri et al. In the study, a 5-point rating system (never, sometimes, generally, often, always) was adopted. Scale items are scored between "0 never" and "5 always". Cronbach's Alpha internal consistency coefficients of the subscales calculated to determine the reliability of the scale were found to be .76, .82, and .61, respectively (7,8).

Ethics of the Study

After obtaining the institutional permission and the approval of the Ethics Committee (IRB No:2019/25-19), the students willing to participate in the study were informed about the study, and their written consent was obtained.

Data Analysis

The data obtained because of the study were analyzed using Statistical Package for the Social Sciences (SPSS) for Windows 16.0 software package. Numbers and percentages were used for the evaluation of the socio-demographic characteristics of the participants and their opinions about employment, the t-test was employed to make comparisons between grades, and the multiple linear regression analysis was used to analyze the degree to which the satisfaction levels of the students predicted the subscales of the burnout scale. Also, VIF and the tolerance value were used to evaluate the existence of multicollinearity. The statistical significance level was accepted as p <0.05.

RESULTS

Findings of the study indicated that 71% (n = 301) of the students were female, 37.9% (n = 161) were second-year students, 62.5% (n = 265) were in the 20-23 age group, 41% (n = 174) were living in a province, 44.8% of the mothers (190) and 33% of the fathers (n = 140) were elementary school graduates, 83.3% (n = 353) had a nuclear family type, 46% (n = 195) had 0-2 siblings, 64.4% (n = 273) had family income that was equal to expenses, 83.3% (n = 535) did not have any previously diagnosed disease, 57.5% (n = 244) had voluntarily selected their curent school, 63.9% (n = 271) were currently satisfied with their department, and that 77.1% (n = 327) had future employment concerns.

The results of the regression analysis indicated that the subscales of the academic satisfaction scale of nursing students explained 13.1% of the exhaustion subscale score of the students (R^2 = 0.131, p <0.01). Besides, the academic staff subscale was found to significantly predict the satisfaction levels of the students (β = -0.311).

In the regression analysis, the subscales of the academic satisfaction scale of nursing students were found to explain 13.8% of the exhaustion subscale score of the students (R^2 = 0.138, p <0.01). On the other hand, the academic staff subscale (β = -0.263) and the course and syllabus subscale (β = -0.024) were found to predict the satisfaction levels of the studentssignificantly.

According to the regression analysis, the subscales of the academic satisfaction scale of nursing students were determined to explain 8.2% of the exhaustion subscale score of the students (R^2 = 0.082, p <0.01).

Table 2. The degree to which the academic satisfaction levels of nursing students predicted the depersonalization subscale

Variables	Beta	Standard Error	β*	t**	p
Constant	17.852	0.880		20.297	0.000
Academic staff	-0.128	0.035	-0.263	-3.671	0.000
Counseling	0.024	0.053	0.030	0.452	0.651
Management	-0.004	0.049	-0.006	-0.075	0.940
Resources	-0.028	0.040	-0.055	-0.703	0.483
Computer facilities	0.052	0.074	0.042	0.698	0.486
The course and the syllabus	-0.146	0.064	-0.145	-2.269	0.024
R***	0.371				
R2****	0.138				
F*****	11.071				
p	0.000				

Abbreviations: *β, Standardized Beta; ** t, t-test value; ***R, correlation co-efficient; **** R^2, R Square; F, ANOVA Value

Table 3. The degree to which the academic satisfaction levels of nursing students predicted the accomplishment subscale

Variables	Beta	Standard Error	β*	t**	p
Constant	9.688	0.618		15.678	0.000
Academic staff	0.036	0.025	0.109	1.468	0.143
Counseling	-0.056	0.037	-0.104	-1.518	0.130
Management	0.055	0.035	0.129	1.599	0.110
Resources	0.008	0.028	0.022	0.276	0.782
Computer facilities	-0.003	0.052	-0.004	-0.063	0.949
The course and the syllabus	0.102	0.045	0.150	2.269	0.024
R***	0.287				
R2****	0.082				
F*****	6.216				
p	0.000				

Abbreviations: *β, Standardized Beta; ** t, t-test value; ***R, correlation co-efficient; **** R^2, R Square; F, ANOVA Value

Also, the course and the syllabus subscale (β = -0.024) was found to predict the satisfaction levels of the students significantly.

The regression analysis showed that the subscales of the Masclak Burnout Inventory of the nursing students explained 25.8% of students' satisfaction with their current department (R^2 = 0.258, p <0.01). Also, depersonalization (β = -0.343), exhaustion (β = -0.152), and accomplishment (β = 0.109) subscales were found to significantly predict students' satisfaction with their current department, respectively (β = -0.145).

No statistically significant difference was found between the students' mean scores from the exhaustion, depersonalization, and accomplishment subscales by grades (p> 0.05). However, there was a significant difference between the mean satisfaction scale scores of the students by grades (p <0.05).

DISCUSSION

This study investigated the effect of nursing students' academic satisfaction on their burnout levels. Demographic variables such as gender, the number of children in the family, monthly household income, rural/urban life, satisfaction with the department, future unemployment concerns, and expectation of having a good job in the future were considered to be effective in life satisfaction and academic success (13). In our study, no statistically significant result was found between demographic data and burnout (p> 0.05). Academic satisfaction covers the education process that includes the knowledge and skills that students acquire, attitudes of academic staff, counseling, school management, course and syllabus, and access to resources (3. 14, 15). Students' satisfaction with these variables leads to less burnout. Increased academic service quality of instructors is directly related to the increase in student

Table 4. The degree to which the exhaustion levels of nursing students predicted the satisfaction levels with their current department

Variables	Beta	Standard Error	β*	t**	p
Constant	82.468	5.029		16.398	0.000
Exhaustion	-0.591	0.269	-0.152	-2.201	0.028
Depersonalization	-1.554	0.314	-0.343	-4.957	0.000
Accomplishment	0.723	0.287	0.109	2.518	0.012
R***	0.508				
R^2****	0.258				
F*****	48.741				
P	0.000				

Abbreviations: *β, Standardized Beta; ** t, t-test value; ***R, correlation co-efficient; **** R^2, R Square; F, ANOVA Value

Table 5. Examination of the subscales of the burnout scale by grades

		X̄+SD	t	p
Exhaustion	1st-year (n=119)	14.57+4.080	-1.227	0.221
	4th-year (n=78)	15.34+4.695		
Depersonalization	1st-year (n=119)	10.10+3.849	-1.312	0.191
	4th-year (n=78)	10.82+3.635		
Accomplishment (n=)	1st-year (n=119)	12.63+2.848	-0.840	0.402
	4th-year (n=78)	12.98+3.021		

satisfaction levels (16). In the regression analysis conducted in our study, the exhaustion subscale of the nursing students was found to be significantly affected by the attitude of the academic staff (β = -0.177) (Table 1). This result was similar to the result of the study conducted by Ekiz et al. (17). In nursing education, students have one-to-one interaction with instructors in clinical practices as well as in their theoretical lessons. The teaching skills and communication style of the instructors affect students especially in terms of experiencing less stress in the clinical setting.

According to some studies, the negative effect of clinical stress levels of nursing students on learning and difficulties in transferring theoretical knowledge into practice indicates that students need more support from instructors. Intensive and mainly applied education of nursing students affects students' motivation significantly (18).

Factors such as teaching new knowledge and skills related to each new course, the approach of team members in the clinical setting, and patient and patient relatives, and deficiencies related to the hospital infrastructure can cause students to have difficulty in transferring information to the clinical setting. The dominance of instructors over the clinical setting, their level of knowledge and skills, and the competence level relating to problem-solving provide a constructive learning environment for students. In this way, students are positively affected by the attitude of the instructor they perceive. These results of our study were found to be consistent with the studies in the literature. Civci and Şener (19) found that the intrinsic motivation levels of the prospective nurses were significantly different in those who selected the nursing profession willingly (p = 0.014). With this awareness, instructors are recommended to determine models, strategies, and methods in the teaching process. Taslak and Işıkay (20) reported that state-trait anxiety and hopelessness decreased as the perception of education increased in students who selected their school willingly, who had very good relations with schoolmates, and who were totally satisfied with their institution.

In this study, the satisfaction levels of the nursing students were determined to explain 13.8% of the depersonalization levels, and the variables having a significant effect were found to be academic staff, and the course and the syllabus (Table 2). According to the literature, many factors affect students' depersonalization (14, 15, 21-24). Therefore, in our study, the explanation of student burnout by

satisfaction alone by 13.8% was an important finding. As a result of a lesson and practice environment in which instructors cannot make the lessons enjoyable, they create content that decreases the motivation of the student and increases the workload, and they cannot teach how to access information in the practice areas and which coping methods to use in different cases, the interest of students in the lesson/practice was determined to decrease and students' depersonalization was found to increase (14, 15, 21-24). The results of this study were consistent with this information in the literature, too, and an inverse relationship was found between the attitude of academic staff and interest in the course and depersonalization subscales (Table 2). Aktürk et al. stated that a good instructor should support students, be able to give constructive feedback, be accessible, provide students with opportunities to practice, be enthusiastic, avoid getting angryeasily, not claim that they know everything, and clearly state learning goals (25).

In the regression analysis, the accomplishment subscale was found to be affected only by the course and syllabus significantly (β = 0.102). In nursing education, the knowledge and skills that students learn increases as their grade levels increase. Even though it was not statistically significant, comparison of the mean accomplishment subscale scores of 1st and 4th-year students indicated that they experienced less burnout as they felt more competent (Table 3). This can increase satisfaction. Especially in the fourth-year, due to clinical practice-based education, students find the opportunity to experience their skills more. Also, their guidance by the preceptor nurses helps them to see themselves as more of a team member, to feel more competent in terms of readiness for the profession, and their motivation increases more (24,26). Increased clinical experience and decision-making skills of students, especially during the internship period, make them feel more competent (26). Students' interest in the course and the syllabus increases their academic satisfaction and reduces their burnout by supporting their competencies. The fact that the accomplishment subscale of the students was found to be not affected by academic staff, counseling, management and access to resources may be because students were more interested in the clinical aspects of nursing education (Table 3).

Optimism can play an active role in academic success. Ekber Şahin determined that student satisfaction was achieved at a "very low" level in the management, resources, and computer facilities subscales, and a "medium" level in the academic staff, counseling, and syllabus subscales (12). In our study, academic satisfaction was found to be not significantly affected by the counseling service received from academic staff, management, resources, computer facilities, and the course and the syllabus subscales. This can be said to be associated with the number of students, few instructors, lack of the convenient physical conditions of the faculty, and lack of opportunities for students to apply the newly learned skills in the clinical setting. These might be because the school could not provide an appropriate learning environment due to the high number of students, patient safety, and cost. For this reason, students were observed to experience more exhaustion due to the difficulties experienced in each of the stages of planning, implementation, and evaluation of nursing interventions (Table 4). In a study by Karadag et al. (11), students reported that the leading problems of nursing education were the number of students, the inadequacy of physical conditions of the education, and the few numbers of instructors. Polat et al, reported that there should be an adequate number of students to attend clinical practice, other employees should be informed about students, and that more clinical presentation and guidance should be provided (10).

The evaluation of academic satisfaction by grades indicated that the lowest level of satisfaction was in 2nd-year students (p = 0.001). There were basic medicine courses and introduction to nursing in the first-year curriculum, but the 2nd- year courses contained more in-depth nursing issues and students experienced the clinical setting for the first time. This might have increased their stress (Table 5). On the contrary, reported the highest student satisfaction in 2nd-year students and the lowest satisfaction in 4th-year students.

CONCLUSION

Educational institutions and faculty members should focus on improving the quality of teaching to achieve the expected academic properties. Therefore, understanding what students expect from the education process is important in ensuring and evaluating their satisfaction with this process. To provide care to patients by using a holistic approach, we recommended that educators should determine models, strategies, and methods in the teaching

process by examining the nursing curriculum. It is important to give importance to providing students with the necessary support in the practice setting, developing their self-confidence and professional consciousness, helping them to establish positive relationships, and not to make them work outside their duties. We recommended that students should be considered as the future nurses, they should be involved in educational meetings to have them feel they are part of the clinic, and problems emerging related to student education should also be followed closely by the administrative nurses.

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