

Autonomy Levels Among Nurses: Professional-Institutional Factors That Affect Autonomy

Hemşirelerin Otonomi Düzeyleri: Otonomiye Etkileyen Bazı Profesyonel-Kurumsal Faktörler

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ABSTRACT Objective: The purpose of the study was to determine the level of autonomy among nurses and to examine the professional and institutional factors that affect autonomy. **Material and Methods:** We carried out this descriptive, cross-sectional study on 582 nurses working in three hospitals. We used two forms for data collection. The first was the personal information form with 21 questions including factors that affect autonomy in clinical nurses. The second was the 30-item autonomy subscale of the Sociotropy/Autonomy Scale (SAS). **Results:** Response rate was 79.6% (n=582). Based on the research findings, the mean General Autonomy (GA) score among nurses was 75.95 ± 16.22 . Although no statistically significant difference was found for GA and Autonomy Subfactors (ASF) score means regarding educational degree, the level of autonomy increased as the educational degree increased. The status of reading scientific publications and the status of participating in continuing education programs increased the GA level of nurses ($p < 0.05$). We did not find a significant difference for GA levels between institutions ($p > 0.05$). **Conclusion:** Considering that the possible range of scores for GA is 0-120, we suggest that the general level of autonomy for nurses is moderate.

Key Words: Nursing; nurse practitioners; personal autonomy; decision making

ÖZET Amaç: Bu çalışmanın amacı, hemşirelerin otonomi düzeylerinin belirlenmesi ve otonomiye etkileyen bazı mesleki ve kurumsal faktörlerin incelenmesidir. **Gereç ve Yöntemler:** Tanımlayıcı ve kesitsel özellikteki bu çalışma, üç hastanede çalışan 582 hemşire üzerinde gerçekleştirilmiştir. Araştırmada veri elde etmek için iki form kullanılmıştır. Kullanılan birinci form, klinik hemşirelerinde otonomiye etkileyen faktörleri içeren 21 sorudan oluşan bireysel bilgi formudur. İkinci form Sosyotropi/Otonomi Ölçeği (SOÖ) içindeki 30 maddelik otonomi alt ölçeğidir. **Bulgular:** Çalışmaya katılım oranı %79.6 olmuştur (n=582). Araştırmadan elde edilen bulgulara göre, hemşirelerin genel otonomi puanı ortalaması 75.95 ± 16.22 olarak bulunmuştur. Hemşirelerin eğitim düzeyine göre genel otonomi ve otonomi alt faktör puanı ortalamaları arasında istatistiksel olarak önemli bir fark bulunmamakla birlikte ($p > 0.05$), eğitim düzeyi arttıkça otonomi düzeyi de yükselmektedir. Bilimsel yayın takip etme ve hizmet içi eğitim programlarına katılma durumunun genel otonomi düzeyini artırdığı saptanmıştır ($p < 0.05$). Genel otonomi düzeyi yönünden, kurumlar arası istatistiksel olarak önemli bir fark bulunmamıştır ($p > 0.05$). **Sonuç:** Ölçekten elde edilecek genel otonomi puanı aralığının 0-120 olduğu göz önüne alındığında, hemşirelerin genel otonomilerinin orta düzeyde olduğu sonucuna varılabilir.

Anahtar Kelimeler: Hemşirelik; hemşire uygulayıcılar; bireysel otonomi; karar verme

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The issue of nurses' autonomy is one of the recurring interests in the research literature. Autonomy is considered an essential component for professional development in nursing.¹ Furthermore; autonomy is generally considered a desirable feature within the nursing profession.^{2,3}

Autonomy is viewed as a positive concept for nurses influencing job satisfaction, retention and quality of care.^{2,4,5} Autonomy in everyday nursing practice is one way to achieve greater visibility to the work of nurses.⁶ Lack of autonomy among nurses has been a recurring issue in nursing research for many years.^{7,8} It is an important challenge indeed to strengthen the professional status of nurses. Few studies have been published on the level of autonomy among Turkish nurses.^{9,10} Therefore; the aim of this descriptive study was to determine the level of autonomy of nurses in our country.

The word, autonomy, is derived from the Greek, "auto" (by oneself) and "nomos" (law, rule) meaning directing or governing oneself. Self-governance is the base of autonomy.^{2,11-13} Autonomy is defined as having control over one's life, not being subject to the will of another, the right of self-determination, and the right to decide or freedom of choice.^{5,12,13} Autonomy is defined as being composed of three bases: knowledge base (independence, right and responsibility in decision-making), action base (independence, right and responsibility in actions) and value base (independence, right and responsibility in values).⁸ An autonomous individual is protected from unwanted interference and autonomous individual is sufficiently competent to receive, understand and make choices based on available information.¹²

The word for autonomy related to professions, however, considers the more personal dimensions of the concept of autonomy. Personal autonomy is extremely important for the nursing profession because it is the foundation for acquiring a professional status.⁹ Personal autonomy is built socially. Autonomy in this context is related to specific social relationships and power structures in which we find ourselves.¹⁴ The acquisition of autonomy is related to the individuals' own make-up and has to begin with the individuals' own desire for autonomy.² Professional autonomy reflects personal autonomy and finds meaning within supportive social relationships.^{14,15}

Personal autonomy of nurses directly affects their acquisition of institutional and professional

status. The personal autonomy that members of a profession have is important for that profession's attainment of professional status.¹⁶⁻¹⁹ Various researchers and scientists define autonomy in nursing as the ability to make nursing decisions about care and having independent practice.^{1,15,17,20-23} The autonomy that nurses request means the maintenance of the authority of nursing by means of authorities of their own.^{11,24-26}

The importance of the concept of autonomy in nursing has emerged in the last 20 years.^{7,25} The concept of autonomy has not yet reached complete understanding in nursing and it remains a concept at the theoretical level for the majority. Autonomy is the cornerstone of a profession. However, throughout history and continuing today nursing has had less independence than other professions.^{27,28} There is a relationship between autonomy being gained in nursing and a socialization process. We have seen women, for centuries, as self-sacrificing individuals who raise children. In the world, in which men are dominant, this role of women, that is to say being professionals, has been pushed into the background.^{2,23,29} Facing these attitudes, nurses as professional individuals have taken on a passive role in the acquisition of autonomy. With this passive attitude in nursing, the belief that gaining autonomy is tied to external conditions has become internalized. And thus the belief that autonomy will be given to the group with power (for example, physicians) has become dominant.^{2,5,23,29} This means that it is necessary for nurses to assume control of situations that affect themselves and the individuals they give nursing care to. It is also necessary to display autonomous behaviors for the acceptance of the nursing occupation as a profession.^{22,27}

The lack of autonomy has dimensions that are institutional and based on education. These include staff levels that do not make it possible to provide quality nursing services, having job confusion and lack of definition interfering with effective and safe nursing care, poorly managed institutions and nursing programs interfering with the actions of independent professionals.^{6,14,30-32}

Although there are many studies about the autonomy in nursing, studies focusing on the level of autonomy of the nurses and their professional and institutional characteristics are lacking. Thus, the results of this study may provide new data for the literature.

The aims of this study were to:

1. determine the level of autonomy of nurses
2. to investigate professional and institutional factors which affect the autonomy level of nurses.

MATERIAL AND METHODS

ETHICAL CONSIDERATION

To apply the instruments, we obtained ethical approval from the Research Committee of Cumhuriyet University School of Nursing and Institute of Health Sciences. The Ethics Committee of the University Hospital also approved the study protocol. There is no ethics committee in either of the state hospitals where the study was conducted. Thus, we took the written approval from the administrations of the hospitals. We made an appointment with the hospital directors of nursing and informed them on the subject and purpose of the study. We took oral consents from the participants after informing them on the research and before data collection.

SETTING AND SAMPLE

We carried out this research, with a descriptive, cross-sectional design, at one university hospital and two state hospitals in Sivas, a major city in the Central Anatolian Region of Turkey. The research data were collected from April 15 to May 30, 2005.

The university hospital had a 750-bed capacity. Nursing services were managed by the Director of Nursing. The nurses in all wards worked three shifts: 08:00-16:00, 16:00-24:00, and 24:00-08:00. Nursing services on the wards were conducted with a patient sharing system but were work-centered. Nursing services of both State Hospital A with 600-bed capacity and State Hospital B with 376-bed capacity were managed by the Direc-

tor of Nursing. The nurses on all wards worked the 08:00-16:00 shift and in a rotating 24-hour shift system. Nursing services on the wards in both hospitals were conducted consistent with a functional nursing model. Except for the supervisors, all the nurses in management positions and the outpatient clinical nurses in the University and the State Hospitals worked the 08:00-16:00 shift.

The research population comprised 289 nurses from the University Hospital, 340 from the State Hospital A and 102 from the State Hospital B reaching a total of 731 nurses.

The nurses worked in 5 main areas: (1) Medical Wards (General Medicine, Pulmonary Medicine, Physical Therapy and Rehabilitation, Neurology, Dermatology, Psychiatry, Infectious Diseases, Pediatrics, Pediatric Hematology, Cardiology), (2) Surgical Wards (General Surgery, Cardiovascular Surgery, Neurosurgery, Urology, Otolaryngology, Ophthalmology, Orthopedics, Plastic Surgery, Pediatric Surgery, Hand Surgery), (3) Intensive Care Units (Post-anesthesia Intensive Care Unit, Coronary Intensive Care, Cardiovascular Surgery Intensive Care, Neurosurgery Intensive Care), (4) Operating Rooms, and (5) Emergency Services (Adult and pediatric emergency)

THE STUDY POPULATION AND RESPONSE RATES

The original plan was to include all the research population in the sample. However, on the dates when the research was conducted, there were some nurses on leave or not working, and others who did not want to participate in the research, and thus those people were not included.

Two hundred and fifty nurses out of 289 employed at the University Hospital, 250 out of 340 nurses employed at the State Hospital A, and 82 of the 102 nurses employed at the State Hospital B were included in the sample. Overall, 149 nurses did not participate and the total response rate was 79.6% (n= 582).

INSTRUMENTS

We used two forms for data collection in this research, a Personal Information Form and the SAS.

The Personal Information Form contains 21 questions on factors that affect autonomy in nurses, determined based on information in the literature. The Personal Information Form is used to obtain information about the most important factors affecting independent decision-making. Of all, the following are individual and professional factors: age, marital status, educational degree, duration of employment, job location, active participation in nursing education programs, regular reading of scientific nursing journals, and being a member of a professional organization. Institution, position in the hospital, the clinic where they work, whether or not they worked night shifts and number are the institutional factors. The form had open-ended and closed-ended questions.

SAS is a 60-item tool, 30 items of which comprise the sociotropy subscale and 30 items the autonomy subscale.^{33,34} The Autonomy Subscale measures personal characteristics of dependency and autonomy. The scale is a measuring tool directed to the self-evaluation of people and it may be used for both adolescents and adults. The use of the scale is not limited to a special population such as patient groups. The total score for the 30-item Autonomy scale is obtained by calculating the subfactors. These subfactors are the 12-item Individual Achievement (IA) ASF that are preconditions for autonomy, the 12-item Independence (I) ASF, which facilitates independent decision-making, and the 6-item Preference for Solitude (PS) ASF, which reflects the ability to be independent and self-sufficient. Beck et al developed this tool, and Şahin who also tested its reliability and internal consistency, finding a Cronbach's alpha coefficient of 0.81 adapted it for Turkish in 1993.³³⁻³⁵ This value shows a high level of internal consistency for the tool. In our research, the result of the reliability analysis of the tool was a Cronbach's alpha coefficient of 0.83.

There are five choices in response to the items on the Autonomy Subscale to indicate to what degree the participants would describe themselves from the aspect of dependency and autonomy scoring from 0 to 4: 0 (does not describe me at all), 1 (somewhat describes me), 2 (describes me fairly

well), 3 (describes me well), and 4 (describes me very well). The highest possible score from the tool is 120 and the lowest is 0. A high score reflects a high level of autonomy. The tool takes approximately 15 minutes to complete.

DATA COLLECTION

Before beginning to collect data, the researchers met with each of the ward charge nurses to obtain the number of nurses and their work schedules. After nurses were informed on the study, we took their oral consent. First, we gave the data collecting forms to the participants and asked them to examine the forms. Then, we answered their questions about how to fill in the forms. General information about the research was given and the time provided to complete the questionnaire was not restricted. Then, we asked the nurses to fill in the forms themselves at any time and place when they felt convenient. The meetings with the nurses working night shift were conducted during their meal and tea breaks. The forms were taken back by the researchers after they were filled.

DATA ANALYSIS

We ran the evaluation of the research data in two phases. In the first phase, we calculated the scores from the scales. A score of 0 was given for the answer, "does not describe me at all", 1 for "somewhat describes me", 2 for "describes me fairly well", 3 for "describes me well", and 4 for "describes me very well." Then we calculated the separate ASF and GA score means.

The job satisfaction scores that the nurses gave themselves were given a value of "1" for the lowest and "5" for the highest.

We accepted appropriate definitions of autonomy as those answers including self-governance, decision-making, competence, freedom, self-control and assuming responsibility, or that touched on several of the dimensions of autonomy.²

We carried out the statistical analyses on a computer using SPSS (Statistical Package for Social Sciences/11.0 for Windows) package program, with a significance range of $p < 0.05$. We used frequency and percent distributions of data

to assess the information. In the statistical analysis, we evaluated the relation between all variables in the Personal Information Form and autonomy scores. With the purpose of evaluating the influence of professional and institutional characteristics of the nurses on autonomy score means, we used t-test for the comparison of the two variables, and One-Way ANOVA for the ones with three or more variables. When the difference between the groups compared by One-Way ANOVA was statistically significant, we used the Tukey test to determine from which variables the difference resulted.³⁶

LIMITATIONS OF THE STUDY

As the research reported here was limited to one university hospital and two state hospitals, it is hard to generalize the results. Although the findings were significant for Turkish nurses, the design and sample were inadequate for generalization of the findings to a larger population of nurses. However, the findings provide information and hypotheses for future work.

RESULTS

SAMPLE CHARACTERISTICS

The mean age of the nurses was 28.60 ± 5.37 years, and the majority (43.8%) were in the 25-29 year old age group (Table 1).

More than half of the nurses (55.5%) did not participate in any kind of continuing education program. This high rate may be attributed to the lack of an organized continuing education program in State A and State B hospitals. The majority (67.9%) of the nurses in the study was not a member of any professional organization and 79.0% did not regularly read any scientific journal. More than half of the nurses (58.8%) were not able to define autonomy in a manner consistent with the literature. One-third (33.5%) of the nurses, who were directed towards specific work conditions at their hospital, had a moderate level of job satisfaction. Of the participants, 54.4% stated that the hospital management did not support their autonomous behaviors and 52.1% stated that the most important factor with a negative effect on their independent

TABLE 1: Demographic characteristics of nurses according to their place of work (n=582).

Demographic characteristics	n (%)
Age	
20-24	140 (24.1)
25-29	255 (43.8)
30-34	101 (17.4)
35↑	86 (14.7)
Marital status	
Married	343 (58.9)
Single	237 (40.8)
Widowed	2 (0.3)
Educational level	
Health High School	175 (30.1)
Associate Degree	258 (44.3)
Baccalaureate	143 (24.6)
Masters	6 (1.0)
Hospital nurses employed	
University Hospital	250 (42.9)
State Hospital A	250 (42.9)
State Hospital B	82 (14.2)
Work area	
Medical Wards	262 (45.0)
Surgical Wards	186 (31.9)
Intensive Care Units	50 (8.6)
Emergency Service	47 (8.1)
Operating Rooms	37 (6.4)
Length of employment	
0-4 years	206 (35.4)
5-9 years	169 (29.0)
10-14 years	104 (17.9)
15↑ years	103 (17.7)

decision-making was that their work was dependent on physicians.

AUTONOMY LEVEL OF NURSES

According to the research findings, GA score mean of the nurses was 75.95 ± 16.22 (Table 2).

SOME PROFESSIONAL FACTORS THAT AFFECT AUTONOMY LEVEL OF NURSES

The GA score mean according to educational degree was 89.33 ± 16.58 for nurses with Master's Degree, 76.06 ± 17.01 for nurses with Baccalaureate Degree, 76.12 ± 15.61 for nurses with health high school degree, and 75.47 ± 16.13 for nurses with associate degree (Table 3). The differences for GA

TABLE 2: Distribution of GA and ASF mean scores.

	Min	Max	X ± SD
Individual Achievement ASF Score Means	6.00* (0.00) **	48.00* (48.00) **	32.87 ± 7.30
Independence ASF Score Means	12.00 (0.00)	47.00 (48.00)	30.84 ± 7.13
Preference for Solitude ASF Score Means	0.00 (0.00)	24.00 (24.00)	12.50 ± 4.83
General Autonomy Score Means	28.00 (0.00)	117.00 (120.00)	75.95 ± 16.22

* The minimum and maximum score that individuals received from the scale.

** The numbers in parentheses are the minimum and maximum values that can be obtained from the scales.

GA: General Autonomy, ASF: Autonomy Subfactors.

and ASF score means according to educational degree were significant (GA/F= 1.44, $p= 0.228$; IA/F= 1.49, $p= 0.215$; I/F= 0.89, $p= 0.446$; PS/F= 2.72, $p= 0.043$).

The GA score means according to duration of employment were the highest for nurses employed for 5-9 years (77.50 ± 15.98) and the lowest for those employed for 10-14 years (72.66 ± 15.38) (Table 3). When compared for duration of employment, while IA and PS-ASF score means were significant ($F= 3.50$, $p= 0.015$; $F= 3.04$, $p= 0.028$ respectively), GA and I-ASF score means ($F= 1.21$, $p= 0.304$; $F= 2.13$, $p= 0.094$ respectively) were not.

The mean GA scores for nurses who did and did not participate in continuing education programs were 77.99 ± 16.22 and 74.32 ± 16.06 respectively and the corresponding IA-ASF score means were 34.04 ± 6.88 and 31.93 ± 7.51 (Table 3). The difference between the GA and IA-ASF score means regarding participation in continuing education programs ($t= 2.72$, $p= 0.007$; $t= 3.52$, $p= 0.000$ respectively) was significant, whereas the difference for I and PS-ASF score means was not ($t= 1.32$, $p= 0.185$; $t= 1.97$, $p= 0.050$ respectively).

The GA score mean for nurses who did and did not read scientific journals regularly was 80.16 ± 15.55 and 74.84 ± 16.23 respectively (Table 3). There was a significant difference for GA, IA and I-ASF score means depending on whether the nurses regularly read scientific journals or not ($t= 3.33$, $p= 0.001$; $t= 3.96$, $p= 0.000$; $t= 2.66$, $p= 0.008$ respectively), but not for PS-ASF ($t= 1.75$, $p= 0.081$).

The GA score means for job satisfaction self-rated by the nurses ranging from "1" to "5" were

respectively 73.09 ± 16.21 , 77.91 ± 15.76 , 74.81 ± 16.07 , 75.92 ± 15.63 and 78.60 ± 18.05 (Table 3). According to the level of job satisfaction, there was no significant difference between the GA and ASF score means (GA/F= 1.39, $p= 0.236$; IA/F= 2.51, $p= 0.041$; I/F= 0.86, $p= 0.483$; PS/F= 1.62, $p= 0.166$). However, according to our results, as the level of job satisfaction increased, so did their level of autonomy.

SOME INSTITUTIONAL FACTORS THAT AFFECT AUTONOMY LEVEL OF NURSES

The GA score mean was 77.81 ± 16.99 for nurses employed at the university hospital, 74.75 ± 15.26 for nurses at the State Hospital B and 73.95 ± 16.29 for those at the State Hospital A (Table 4). The differences in GA, IA, and I-ASF mean scores were not significant ($F= 2.97$, $p= 0.052$; $F= 2.79$, $p= 0.062$; $F= 0.79$, $p= 0.453$ respectively). On the other hand, the PS-ASF score means for independence and self-sufficiency between hospitals were significantly different ($F= 6.76$, $p= 0.001$). PS-ASF score mean was higher for the nurses employed at the university hospital (13.34 ± 4.84) than for the other two hospitals. Detailed evaluation with the Tukey test revealed that the source of the difference was the university hospital nurses.

The GA score means were 80.23 ± 15.66 for nurses working in an intensive care unit, 77.37 ± 17.14 for nurses working on a surgical ward, 77.25 ± 17.25 for nurses working in the emergency department, 74.43 ± 14.96 for nurses working on a medical ward and 72.61 ± 17.33 for the ones working in the operating room (Table 4). There was no significant difference between the GA and ASF

TABLE 3: Autonomy level of nurses according to some professional factors.

Professional factors	Individual Achievement	Independence	Preference of Solitude	General Autonomy
	X ± SD	X ± SD	X ± SD	X ± SD
Educational level				
Health High School (n= 175)	32.64 ± 7.10	31.14 ± 6.99	12.57 ± 5.08	76.12 ± 15.61
Associate Degree (n= 258)	32.95 ± 7.20	30.65 ± 7.14	12.11 ± 4.68	75.47 ± 16.13
Baccalaureate (n= 143)	32.74 ± 7.74	30.61 ± 7.34	12.95 ± 4.71	76.06 ± 17.01
Masters (n= 6)	39.00 ± 6.06	35.00 ± 5.76	17.00 ± 4.33	89.33 ± 16.58
One-Way ANOVA	F= 1.49	F= 0.89	F= 2.72	F= 1.44
	p= 0.215	p= 0.446	p= 0.043	p= 0.228
Length of employment				
0-4 years (n= 206)	32.20 ± 7.37	30.82 ± 7.32	13.19 ± 4.72	75.77 ± 16.14
5-9 years (n= 169)	33.62 ± 6.94	31.42 ± 6.86	12.48 ± 4.92	77.50 ± 15.98
10-14 years (n= 104)	31.58 ± 7.06	29.75 ± 7.14	11.50 ± 4.45	72.66 ± 15.38
15@ years (n= 103)	32.25 ± 7.71	31.01 ± 7.14	12.18 ± 5.02	77.16 ± 17.30
One-Way ANOVA	F= 3.50	F= 1.21	F= 3.04	F= 2.13
	p= 0.015	p= 0.304	p= 0.028	p= 0.094
Status of participation in continuing education programs				
Participants (n= 259)	34.04 ± 6.88	31.27 ± 7.13	12.94 ± 4.92	77.99 ± 16.22
Non-participants (n= 323)	31.93 ± 7.51	30.48 ± 7.12	12.15 ± 4.73	74.32 ± 16.06
Independent-Samples t Test	t= 3.52	t= 1.32	t= 1.97	t= 2.72
	p= 0.000	p= 0.185	p= 0.050	p= 0.007
Reads/does not read scientific publications				
Reads (n= 122)	35.04 ± 6.67	32.31 ± 6.81	13.18 ± 4.81	80.16 ± 15.55
Does not read (n= 460)	32.29 ± 7.36	30.44 ± 7.17	12.32 ± 4.82	74.84 ± 16.23
Independent-Samples t Test	t= 3.96	t= 2.66	t= 1.75	t= 3.33
	p= 0.000	p= 0.008	p= 0.081	p= 0.001
Level of job satisfaction*				
1 (n= 44)**	31.27 ± 7.67	29.36 ± 7.08	12.72 ± 4.68	73.09 ± 16.21
2 (n= 70)	33.48 ± 7.10	31.04 ± 6.75	13.74 ± 4.80	77.91 ± 15.76
3 (n= 195)	31.92 ± 7.21	30.87 ± 7.05	12.22 ± 4.87	74.81 ± 16.07
4 (n= 191)	33.36 ± 7.00	30.67 ± 7.04	12.17 ± 4.65	75.92 ± 15.63
5 (n= 82)**	34.31 ± 7.92	31.78 ± 7.86	12.78 ± 5.17	78.60 ± 18.05
One-Way ANOVA	F= 2.51	F= 0.86	F= 1.62	F= 1.39
	p= 0.041	p= 0.483	p= 0.166	p= 0.236

*According to the nurses' own statements.

**Lowest level of job satisfaction.

***Highest level of job satisfaction.

score means regarding the place of work (GA/F= 2.20, p= 0.068; IA/F= 2.17, p= 0.076; I/F= 2.35, p= 0.053; PS/F= 1.34, p= 0.253).

The GA score means according to the position of nurses in the hospitals were 75.98 ± 15.66 for head nurses on the wards, 75.56 ± 15.68 for outpatient clinical nurses, 75.41 ± 19.25 for administrative nurses in the Director of Nursing Office, and 75.00 ± 16.26 for bedside nurses (Table 4). The differen-

ce in GA and ASF score means according to the position of nurses was not significant (GA/F= 0.01, p= 0.997; IA/F= 1.31, p= 0.269; I/F= 0.66, p= 0.577; PS/F= 0.77, p= 0.506).

The GA score mean for nurses in our study who worked night shift was 74.42 ± 15.57 and for those who only worked day shift was 77.07 ± 16.85 (Table 4). While the differences for GA, I, and PS-ASF were not significant (t= 1.45, p= 0.148; t= 0.84,

TABLE 4: Autonomy level of nurses according to some institutional factors.

Institutional factors	Individual Achievement X ± SD	Independence X ± SD	Preference of Solitude X ± SD	General Autonomy X ± SD
Institutions				
University Hospital (n= 250)	33.64 ± 7.44	31.26 ± 7.31	13.34 ± 4.84	77.81 ± 16.99
State Hospital A (n= 250)	31.70 ± 6.93	30.30 ± 7.78	11.76 ± 5.05	73.95 ± 16.29
State Hospital B (n= 82)	32.48 ± 7.23	30.46 ± 6.72	11.91 ± 4.63	74.75 ± 15.26
One-Way ANOVA	F= 2.79 p= 0.062	F= 0.79 p= 0.453	F= 6.76 p= 0.001	F= 2.97 p= 0.052
Work area				
Medical Wards (n= 262)	32.16 ± 6.88	30.17 ± 6.60	12.39 ± 4.74	74.43 ± 14.96
Surgical Wards (n= 186)	33.17 ± 7.70	31.69 ± 7.27	12.65 ± 7.72	77.37 ± 17.14
Intensive Care Units(n= 50)	35.38 ± 7.36	31.80 ± 6.98	13.46 ± 4.52	80.23 ± 15.66
Emergency Service (n= 47)	32.56 ± 7.34	32.13 ± 7.96	13.00 ± 5.19	77.25 ± 17.25
Operating Rooms (n= 37)	32.32 ± 7.93	29.14 ± 7.24	11.14 ± 5.37	72.61 ± 17.33
One-Way ANOVA	F= 2.17 p= 0.076	F= 2.35 p= 0.053	F= 1.34 p= 0.253	F= 2.20 p= 0.068
Position in the institution				
Bedside nurses (n= 476)	36.61 ± 7.34	31.01 ± 7.08	12.62 ± 4.88	75.00 ± 16.26
Head nurses on the wards (n= 50)	34.10 ± 6.77	30.28 ± 6.90	11.80 ± 4.32	75.98 ± 15.66
Outpatient clinic nurses (n= 39)	33.35 ± 7.74	30.12 ± 6.91	12.46 ± 4.41	75.56 ± 15.68
Management nurses in the director of nursing office (n= 17)	35.23 ± 6.49	29.11 ± 9.87	11.35 ± 5.83	75.41 ± 19.25
One-Way ANOVA	F= 1.31 p= 0.269	F= 0.66 p= 0.577	F= 0.77 p= 0.506	F= 0.01 p= 0.997
Worked shifts				
Shift worker (n= 469)	32.30 ± 7.03	30.37 ± 7.07	11.86 ± 4.88	74.42 ± 15.57
Non shift worker/only works day shift (n= 113)	33.92 ± 7.49	31.05 ± 7.41	12.49 ± 4.64	77.07 ± 16.85
Independent-Samples t Test	t= 2.00 p= 0.047	t= 0.84 p= 0.399	t= 1.20 p= 0.229	t= 1.45 p= 0.148

p= 0.399; t= 1.20, p= 0.229 respectively), a significant difference was detected between IA score means (t= 2.00, p= 0.047).

In addition, we found no significant difference between the GA and ASF score means according to age, previous employment at another institution, whether or not the nurses were members of a professional organization, and number of night shifts per month (p> 0.05).

DISCUSSION

As there is no specific study related to SAS that could be used as a reference for score rating in our study, a score of 100 and above was considered high. Considering that, the possible range of scores for GA is 0-120 the general level of autonomy for

nurses was suggested to be moderate (Table 2). In a study by Mrayyan, parallel to our findings, nurses had a moderate level of autonomy.¹⁸ On the other hand, in the studies from Turkey, autonomy was the lowest reported professional behavior, possibly due to working in hospitals with an excessively hierarchic and bureaucratic administrative structure, and to the laws that relegate nurses to the status of auxiliary health personnel.¹⁰

Although the GA score means for the health high school, associate degree and baccalaureate degree nurses were close to each other, the master's degree nurses had clearly higher GA and ASF score means than those in other groups (Table 3). Erdoğan and Akyolcu reported that baccalaureate education program increased the ability to make

independent decisions.³⁷ However, the autonomy mean scores of nurses did not show a significant difference based on their educational degree ($p > 0.05$). This may be attributed to the very low number of nurses with Master's level of education compared to the other educational groups.

A review of data from other studies revealed that the correlation between education and level of autonomy was controversial. In the study by Collins and Henderson with results similar to ours, although the level of autonomy was high for nurses working as expert clinicians, there was no difference for other levels of education.¹⁵ A number of reports emphasized that the level of autonomy varied among nurses with different levels of education and that the level of autonomy increased as the level of education increased.^{38,39} In contrast, in the study by Seren, the level of education was found to affect individual autonomy, but as the level of education increased the level of individual autonomy decreased.⁹ In this context, Seren's study that was structured to evaluate individual autonomy is not compliant with the findings of our study.

There is a strong correlation between autonomy and education and the level of autonomy increases as the level of education increases.^{19,38,39-42} The increase in the autonomous characteristics of nurses is provided by issues such as management, education, professional development and research included in the broad framework of baccalaureate education.⁴³ Another basic goal of baccalaureate education is to develop autonomous characteristics for students.⁴⁴ However, as can be seen from the results of our study, the baccalaureate nursing education lacks the power to develop autonomous characteristics in nursing students at the desired level. In 1997 within the framework of the policy signed by the Supreme Education Commission and the Ministry of Health in Turkey for "conversion of health high schools to university level health schools" 79 four-year baccalaureate nursing programs were started. However, it is a known fact in this country that the educational staff and the infrastructure for an educational setting as well as the curriculum programs have been inadequate in achieving the desired goals.

Individual autonomy is closely related to the cultural structure of a society. In one of their studies, Hojat et al suggested that the cultural structure of the level of autonomy was largely affected by the cultural structure of the society.⁴⁵ Similarly, Manninen reached the conclusion that professionalism in nursing was related to the cultural and educational structure of the society.⁴⁶ Boughn found in his study that nursing students had lower autonomy score means than the students in other divisions.⁴⁷ Karagözoğlu similarly found in her study that the nursing students had less autonomy than the other students did.⁴⁴ Nursing students display more giving, dependent, submissive and feminine characteristics and thus they do not desire to have positions that require assertiveness and autonomy.²⁷ Social prejudice cannot easily be broken with education. The mission of training students with low levels of autonomy to become autonomous professionals is the responsibility of nursing schools that provide baccalaureate and postgraduate education. However, the results of our study suggest that the baccalaureate nursing programs are not capable of encouraging the development of independence sufficiently.

In our study there was no significant correlation between the GA score means and number of years of employment ($p > 0.05$) (Table 4). However, reports have suggested that there is a correlation between autonomy and experience. While some references emphasize that autonomy increases with experience,^{8,9,18,23,38,48} Collins and Henderson did not find a correlation between autonomy and experience.¹⁵ The results of our study are similar to those found in the study by Collins and Henderson.

Although there was no significant correlation between the number of years of experience and the I-ASF, which represents the dimension of independent decision making ($p > 0.05$), the correlation was significant with the IA-ASF, which is a precondition of autonomy, and with the PS-ASF, which reflects self-sufficiency ($p < 0.05$) (Table 3). In the study by Seren, the IA-ASF scores increased with experience.⁹ Similarly, in our study, while the nurses with 0-4 years of experience had low IA-ASF scores, the scores of nurses with 5-9 years of

experience were high. This may be attributed to the inability of junior nurses transforming theoretic knowledge into practice during the first few years of employment. However, together with the increasing number of years of experience, there may also be an increase in competency in nursing practice and self-confidence and the level of individual achievement and autonomy may increase significantly. According to Wynd, nurses with longer years of practice experience have high autonomy.²³ In our study, The IA-ASF score for nurses with 10-14 years of experience was lower than for all the other work experience groups and then after 15 years it increased again. Although there is no accurate explanation for this, we assume that nurses with 10-14 years of experience enter a monotonous period, but after 15 years of experience, there is an increase in individual achievement due to various promotions or working on continuous day shift.

In our study, the GA and IA-ASF score means were higher in nurses who participated in continuing education programs and read scientific journals regularly (Table 3). These results suggest that nurses who continue their education in their work lives increase their professional knowledge and experience, which is reflected with an increased level of individual achievement leading to increased independence, which in turn results in higher levels of autonomy. An autonomous decision making process is founded on scientific and specialized knowledge. As knowledge is accumulated, individuals' self confidence increases and this provides for working independently.¹⁹ Moreover, knowledge is the basis of self direction and professional decisions and practice.²

According to the job satisfaction scores that the nurses self-rated, the ones with the highest GA score had also the highest job satisfaction (5), and those with the lowest GA scores had the lowest job satisfaction scores (1) (Table 3). Job satisfaction was rated according to the nurses' own subjective statements and the nurses had a moderate level of job satisfaction (3.33 ± 1.09). This result suggests that it is necessary to rerun the study using a job satisfaction tool. Studies have emphasized that a high level

of autonomy increases job satisfaction.^{1,5,7,13,18,27,42,49} In a study by Alexander et al, job characteristics and job satisfaction affected autonomy and the level of autonomy increased as job satisfaction increased.⁵⁰ According to the study by Seren, high job satisfaction had an effect on autonomy and as job satisfaction increased the level of autonomy also increased.⁹ In Seren's study, the nurses who scored "1" for job satisfaction had a mean autonomy score of 84.01 ± 13.43 and those who scored "5" for job satisfaction had a mean autonomy score of 87.12 ± 14.22 .

The autonomy score means of the nurses in our study who worked in different hospitals were similar to each other (Table 4). There was no difference between the institutions, albeit factors that could increase their autonomy levels such as the finding that most nurses employed at the University Hospital had baccalaureate degree and received more support from their institutions for autonomy (Table 1). As a result, the finding that university hospital nurses, the majority with a baccalaureate degree, did not reach the level of desired autonomy may be attributed to their expression of the traditional image of women in the Turkish society with dependent personal characteristics.

Factors that affect autonomy include the institution's regulations and policies, and the attitudes of the administrative nurses. Collins and Henderson suggested that when nurses were expected to act independently their level of autonomy increased.¹⁵ It was expected that there would be a high level of autonomy in nurses who thought that they the institutions supported them, and managers and who had a professional nursing education at the baccalaureate level. However, institutional support given to the nurses included in the research seemed to be inadequate and the baccalaureate education received by them was ineffective for the development of autonomous behaviors and practices.

The difference between GA and ASF score means regarding the area of work was not statistically significant ($p > 0.05$). However, intensive care unit nurses had higher autonomy scores than the others (Table 4). This may be attributed to the fact

that their seriously ill patients require a high level of care with independent nursing roles; the majority of nurses use the primary nursing approach for nursing care, and intensive care nurses have more organized and frequent special continuing education programs.

Similar to our research findings, in the study by Alexander et al, the level of autonomy for intensive care unit nurses was higher than the nurses who worked on other wards.⁵⁰ The autonomy level of intensive care unit nurses was also higher in the study by Kikuchi and Harada.³⁸ However, a study by Papathanassoglou et al from Greece, suggested that intensive care unit nurses had higher autonomy in technical skills but the level was lower for decision making.⁴² On the other hand, in the study by Seren, the levels of autonomy were similar for nurses working on all wards.⁹ Another different finding in the study by Collins and Henderson was that the emergency department nurses had the highest level of autonomy.¹⁵

The GA and ASF score means according to the positions of nurses in the hospitals were similar and the differences were not statistically significant ($p > 0.05$) (Table 4). In contrast to our expectations, administrative nurses who were responsible for organization were not able to show a difference in autonomy mean scores, probably owing to the facts that nursing is considered a women's profession, and nurses remain dependent on authority and demonstrate few risk-taking behaviors. Based on this finding, we can conclude that administrative nurses in the system are overly dependent on the Medical Director and that promotion of individuals to management positions is based not on specific professional criteria and skills but on their close social relationships with managers. Similarly, Seren also did not find a significant relationship between position in the institution and the level of individual autonomy.⁹ On the other hand, in a study from Turkey by Öztürk et al, 50% of the nurse leaders and 40% of the staff nurses felt dependent, 47.5% of the nurse leaders and 44.8% of the staff nurses felt greater work pressure, and 40% of the nurse leaders and 36.8% of the staff nurses felt hindered in the work place, all of which contribute to

low autonomy.⁵¹ Various other studies in the literature are not consistent with our findings. In the study by Collins and Henderson, administrative nurses had the highest autonomy score means and Wade, reported that administrative nurses had higher levels of autonomy.^{15,19}

The status of working night shift and the number of night shifts worked (Table 4) did not affect the level of autonomy ($p > 0.05$). However, the level of IA-ASF, which is a precondition of autonomy, was higher in nurses who did not work night shift. This higher level of IA may have been the result of day shift nurses having a higher level of experience. The lower level of autonomy in the group of nurses who worked night shift could be related to the fact that nursing practice at night includes more routine and has fewer activities that require independent decision-making.

CONCLUSION AND RECOMMENDATIONS

In the light of the research findings, we concluded that nurses carried out their nursing functions in a dependent and routine manner and had few independent functions. In addition, educational institutions seem to be inadequate and inefficient to develop autonomous characteristics in nursing students, who are future professionals. Moreover, administrative nurses do not adequately display autonomous behavior, and due to institutional regulations and policies, some nurses cannot display independent functions.

Based on the results obtained from this research, we make the following recommendations: (1) Sufficient emphasis should be given in curricula and the educational process for the development in students of critical thinking, problem solving, decision-making, assuming of responsibility, self-assessment, communication and leadership skills; (2) A powerful nursing administration supporting independent functions of nurses who work in health care facilities should be ensured; (3) Organizational authority and responsibility should be given to facilitate nurses in making independent decisions; (4) The autonomy of nurses should be supported and nurses should be included in every phase of decision-making for determining institutional polici-

es, the development of standards of care, conducting work schedules and nursing services; (5) The strengths and individual preferences of administrative nurses and nurses should be considered for organizing continuing education programs to acquire autonomous behaviors.

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