Professional autonomy: Survey of nurses in Iran

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**Abstract**

Independent care is one of the nursing profession priorities which lead to improvement patient’s outcomes and nursing job satisfaction. A cross-sectional descriptive survey using Dempster Practice Behavior Scale was conducted to determine the Iranian nurse’s level of autonomy and its relationship with the underlying factors. 256 nurses in different specialty areas were recruited using systematic random sampling method. Data was analyzed using inferential (ANOVA), T-test, and descriptive statistics (mean and frequency). The mean and standard deviation of DPBS was 96.43± 14.00 which is moderate compared with the possible range of 30–150. Also, significant relationships were found between nursing practice setting, work experience, gender and autonomy.

#### Most of nurses in this study have moderate level of autonomy which shows the necessity of policymakers and health care manager’s attention to improve workplaces based on the professional autonomy requirements to improve nursing job satisfaction and quality of care in the clinical setting.

**Keywords:** Autonomy; nurses; Iran; professional autonomy

##### Introduction

Autonomy has been a key feature in achieving full professional status ([1-3](#_ENREF_1)) and continues to be an essential element for nursing development in the 21st century (Gagnon, 2008). Nurses as a member of a developing profession needs a meaningful level of autonomy to make proper decisions, and act based on these decisions within their full scope of practice in the best interests of patients([4](#_ENREF_4)).

Despite this fact, autonomous decision making in clinical situations continues to be challenging  for the nurses, and they view the exercise of autonomy as “complex”([5](#_ENREF_5)) Therefore, this study was carried out with the aim of exploring the level of autonomy and the impact of contextual factors among Iranian nurses to provide preliminary evidence for professional autonomy improvement. Since autonomy is an essential element of professionalism, these study results will be usefull in nursing development not only in Iran, but also in the other parts of the world.

**Background**

Aautonomous practice is desired and benefits nurses, patients, employers, and the discipline ([6](#_ENREF_6)) and has been related to several favorable outcomes, including: establishment and maintenance of the patient's safety([7](#_ENREF_7)), improving quality care([4](#_ENREF_4)),reducing mortality, increases in job satisfaction ([8](#_ENREF_8)), reducing burnout, enhancing recruitment and retention of the nursing workforce([9](#_ENREF_9)),and maintaining the professional identity([10](#_ENREF_10)).In essence ,in the workplace that nurses feel autonomous, they begin to think critically and independently, and as a result, nursing care outcomes will improve ([11](#_ENREF_11), [12](#_ENREF_12)).

However, the nursing profession has always been faced with challenges to its [authorization](https://www.merriam-webster.com/dictionary/authorization) because of the historical subordination of the profession, (Traynor, 2010). Research findings have accentuated that most of the nurses work in the form of bureaucratic structures where has garnered least level of participation in decision making in the organizational hierarchy ([2](#_ENREF_2), [13](#_ENREF_13)). Such a work atmosphere leads a wide range of personal and professional unpleasant feelings such as depression, dissatisfaction, lack of commitment and motivation ([10](#_ENREF_10)).

In this regards studies suggested that nursing have considered less dependent than other profession (Karagozoglu, 2009) and nurses report low-to moderate autonomy scores([Iliopoulou and While, 2010](#_ENREF_7), [Mrayyan, 2004](#_ENREF_14), [Papathanassoglou et al., 2012](#_ENREF_15))

Despite the universal acknowledgement of nursing autonomy and studies in this subject, very little is known in terms of nursing autonomy. In essence, differences in organizational training, laws, culture, socialization process of nurses in different countries, which may affect the nurses perception of autonomy ([14](#_ENREF_14), [15](#_ENREF_15)) is a demand for more researches from different parts of the world.

**Methods**

**Design**

This cross-sectional study was conducted on nurses employed at different wards of a teaching  
hospitals in a city of the northeast of Iran in 2016.

**Participants**

In total, 250 nurses were selected from a population of 4120 nurses by quota sampling using Cochran’s formula. Questionnaires were randomly distributed among nurses in each ward. Inclusion criteria of the study were bachelors or master’s degree of nursing and at least six months of clinical work experience.

**Data collection**

Data were collected using two-part innominate questionnaires. First section of the questionnaire focused on the demographic data of participants, which were classified into two categories of personal data (e.g., age, gender, marital status and education level) and professional data (e.g., clinical experience and workplace).

Second section was Dempster Practice Behavior Scale (DPBS) questionnaire which the Persian version was used in this study. This self-report scale assess behaviors, actions and manner related to the individual’s autonomy in a practice setting, and consists of 30 questions with 5- point Likert scale, score of 1 (not at all true) to 5 (excepting true). This scale, total scores ranged between 30 to 150 and composed of four subscales: readiness (with 11 questions) that measured progression, skill, competence and movement from one level to another. Empowerment (with 7 questions) includes sanctions, legal status and having rights in a practice setting, actualization (with 9 questions) measured decision making and applying it in the practice area and valuation (with 3 questions) measured elements of worth, value and usefulness related to autonomy in practice. Higher scores indicate a greater extent of autonomy. Reliability analysis was evidenced by a Cronbach’s alpha of 0.95 for 30- item instrument with overall inter- item correlation mean of 0.39 ([16](#_ENREF_16)).

In the present study, reliability was determined by the internal consistency. Cronbach’s alpha coefficients were calculated to determine the internal consistency for total DBPS and each of the subscales by 30 nurses before data collection. The obtained Cronbach’s alpha coefficient was 0.88 for DBPS, for the readiness subscale 0.79, for empowerment subscale 0.59, for actualization subscale 0.73 and 0.52 for valuation subscale. DPBS questionnaire has already been validated in Iran ([10](#_ENREF_10)).

**Data analysis**

Data were analyzed using the Statistical Package for the Social Sciences 18.0. Descriptive statistics were applied to describe the demographics and the DPBS scores. In addition, relationship between the mean of autonomy scores and demographic variables (age, gender, education, practice setting, appointment level, and years worked as a nurse) was assessed using one-way analysis of variance (ANOVA).

**Ethical considerations**

This study was approved by research Vice-chancellor of Tabriz University of medical sciences, with ethics code: 16/12/88. Before data gathering, aim of the study was explained to participants and informed consent was obtained. In this process anonymity was observed.

**Results**

There were 256 copies of the questionnaire were given to participants that met the inclusion criteria for the present study. Two hundred and Fifty participants returned completed questionnaires.

### Demographic characteristics

Data analysis revealed that Most of the participants were female (83.3%), and about half of them (50.8% n=127) were<30 years of age. With regard to the educational characteristics, the majority of the participants were educated with a bachelor’s in Nursing (83.6% n=209) which is considered as the basic nursing education in Iran. Only 2 participants (0.8%) reported associate Degree. The majority (85.2%; *n* = 203) of the study participants worked as staff nurses and the minority of them as managers (7.2%; *n* = 18). With regard to Practice setting, 19.2% of the participants, worked in internal ward, 25.2% in Surgical ward, 17.2% in the Emergency ward, 31.6% in an Intensive care ward, and 6.8% in the Pediatric ward. Details of Demographic data are shown in Table1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table1: comparison of Mean (SD) of autonomy in participants of study based on demographic characteristics** | | | | | |
| P value | SD | Autonomy mean | percent | frequency | Variable |
| **0.031** |  |  |  |  | **Gender** |
| 12.81 | 99.98 | 22.4 | 56 | Male |
| 14.19 | 95.41 | 77.6 | 194 | Female |
| .150 |  |  |  |  | **Age** |
| 13.14 | 95.13 | 50.8 | 127 | 1.00 |
| 14.63 | 96.74 | 34.4 | 86 | 2.00 |
| 15.02 | 100.18 | 14.8 | 37 | 3.00 |
| 0.528 |  |  |  |  | **Marriage** |
| 14.86 | 95.76 | 41.2 | 103 | Single |
| 13.40 | 96.90 | 58.8 | 147 | Married |
| 0.492 |  |  |  |  | **Type of employment** |
| 15.03 | 98.26 | 16.8 | 42 | official |
| 18.34 | 101.05 | 7.2 | 18 | Experimental Official |
| 13.93 | 95.82 | 34.8 | 87 | Contractual |
| 14.12 | 95.60 | 22.0 | 55 | Conventional |
| 11.02 | 95.16 | 19.2 | 48 | committed |
| 0.967 |  |  |  |  | **Degree of education** |
| 15.93 | 97.28 | 2.8 | 7 | Diploma |
| 9.89 | 92.00 | 0.8 | 2 | upper diploma |
| 13.65 | 96.37 | 83.6 | 209 | License |
| 16.47 | 96.90 | 12.8 | 32 | upper license |
| 0.064 |  |  |  |  | **Shift** |
| 13.83 | 100.31 | 15.2 | 38 | Fixed |
| 13.95 | 95.74 | 84.8 | 212 | Circulation |
| 0.175 |  |  |  |  | **Post** |
| 9.83 | 103.11 | 7.2 | 18 | Head nurse |
| 14.38 | 98.40 | 4.0 | 10 | Staph |
| 14.14 | 95.89 | 85.2 | 213 | Nurse |
| 15.68 | 93.66 | 3.6 | 9 | Paramedic |
| 0.059 |  |  |  |  | **Ward** |
| 14.74 | 94.10 | 19.2 | 48 | internal |
| 12.30 | 95.03 | 25.2 | 63 | surgical |
| 14.39 | 97.27 | 17.2 | 43 | emergency |
| 14.51 | 99.69 | 31.6 | 79 | Intensive care |
| 12.09 | 90.94 | 6.8 | 17 | pediatric |
|  |  |  |  |  | **Job satisfaction** |
| **P<0.001** | 15.58 | 87.04 | 8.8 | 22 | Completely dissatisfied |
| 14.53 | 91.95 | 16.8 | 42 | Dissatisfied |
| 12.24 | 94.33 | 27.6 | 69 | Neither satisfied nor dissatisfied |
| 12.65 | 100.88 | 42.4 | 106 | Satisfied |
| 15.65 | 102.63 | 4.4 | 11 | Completely Satisfied |
| **r=0.165(P=0.009)** | 14.00652 | 96.4360 | 7.02© | 8.07® | Work experience |
| ®Mean© standard Deviation | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table2: Pair wise comparison of autonomy in groups based on job satisfaction status** | | | | | |
| Job satisfaction | Job satisfaction | Mean Difference | P Value | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| Completely dissatisfied | Dissatisfied | -4.90 | 0.626 | -14.51 | 4.70 |
| Neither satisfied nor dissatisfied | -7.28 | 0.168 | -16.22 | 1.65 |
| Satisfied | -13.84 | P<0.001 | -22.39 | -5.28 |
| Completely Satisfied | -15.59 | 0.014 | -29.07 | -2.10 |
| Dissatisfied | Neither satisfied nor dissatisfied | -2.38 | 0.891 | -9.52 | 4.76 |
| Satisfied | -8.93 | 0.003 | -15.59 | -2.27 |
| Completely Satisfied | -10.68 | 0.126 | -23.04 | 1.68 |
| Neither satisfied nor dissatisfied | Satisfied | -6.55 | 0.014 | -12.20 | -.90 |
| Completely Satisfied | -8.30 | 0.307 | -20.15 | 3.54 |
| Satisfied | Completely Satisfied | -1.74 | 0.994 | -13.31 | 9.81 |

**DPBS Results**

Dempster Practice Behavior Scale score of participants ranged between 57 and 150 with an average of 96.43±14.00 (Mean ±SD). The results in subscales indicated medium levels of competence, skills, and mastery (93.2%), medium levels of empowerment (82%), medium levels of decision making, responsibility, and accountability (70%), and medium levels of self-respect, achievement, and satisfaction (78.4%), respectively (Mean=3.07 in valuation to 3.27 in actualization subscales items). These data are included in Table 3.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 3: Descriptive statistics of total and Sub scales of DPBS in participants® (n=250)** | | | | |
| Sub scales of DPBS | Minimum | Maximum | Mean | Std. Deviation |
| Readiness | 1.64 | 5.00 | 3.25 | 0.56 |
| Empowerment | 1.86 | 5.00 | 3.13 | 0.52 |
| Actualization | 1.67 | 5.00 | 3.27 | 0.54 |
| Valuation | 1.33 | 5.00 | 3.07 | 0.57 |
| Total | 1.90 | 5.00 | 3.21 | 0.46 |
| Sum scores | 57.00 | 150.00 | 96.43 | 14.00 |
| ® Mean and standard deviation of items of each subscales were reported. | | | | |

According to Table 1, comparison of participants’ scores on the DPBS based on demographic variables by univariate statistics test revealed that males were significantly more independent than females (P=0.031) and comparison of participants’ scores on the DPBS based on work related characteristics demonstrated nurses with higher work experience significantly had higher mean score (r=0.165, P=0.009). There were no statistically significant differences in terms of the other demographic characteristics (Table 1). The results of the multiple linear regression model are presented in Table 1 that showed variables of gender (B=-3.98, CI of 95 %= -7.90- -0.06, male gender is referent), and work experience (B= 0.277, CI of 95%= 0.43-0.511) have a significant effect on the autonomy on the participants and overall explained 12.9 percent of the variance of scores (Table 4).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4: Predictors of autonomy in the participants** | | | | | |
| Variables in the model | B | Beta | P Value | 95,0% Confidence Interval for B | |
| Lower Bound | Upper Bound |
| Male | referent |  |  |  |  |
| Female | -3.986 | -.119 | 0.046 | -7.904 | -.068 |
| Work experience | 0.277 | 0.139 | 0.021 | .043 | 0.511 |
| Completely dissatisfied | referent |  |  |  |  |
| Dissatisfied group | 4.729 | 0.126 | 0.171 | -2.053 | 11.511 |
| Neither satisfied nor dissatisfied group | 7.590 | 0.243 | 0.019 | 1.275 | 13.905 |
| Satisfied group | 13.438 | 0.475 | 0.001 | 7.398 | 19.478 |
| Completely Satisfied group | 15.377 | 0.226 | 0.002 | 5.865 | 24.889 |
| Adjusted R Square | 0.129 | | | | |

**Discussion**

The results indicate that the mean and standard deviation of DPBS in Iranian nurses was 96.43± 14.00 which is moderate compared with the possible range of 30–150. Although this score was higher than the related studies in Iran ([10](#_ENREF_10), [17](#_ENREF_17), [18](#_ENREF_18)), but the literature suggests that the DPBS scores of NPs nurses in the most developed countries are higher in comparing with Iranian nurses. For example, the study of Bahadori, in nurse practitioners (127 ± 10.2), and caljulis study (117.37±14.55) indicated a high level of professional autonomy. Also, other studies showed a similar trend([19](#_ENREF_19), [20](#_ENREF_20)). However, this difference is expected with the regards to the lack of NPs programs in nursing education in Iran. According to Bahadori & et al (2009) The NP programs will grant greater level of autonomy to the nurses([21](#_ENREF_21))

In addition Iranian nurses experience significant challenges such as lack of capacity to exercise autonomy, lack of strong professional bodies, role ambiguity, a directive rather than supportive workplace, and lack of motivation, in achieving professional autonomy([22](#_ENREF_22))

In this study, we investigated specific indices of autonomy, in readiness, empowerment, actualization, and the valuation subscale (Dempster, 1990). Most of the participants had a medium score in the subscales of readiness (93.2%), empowerment (82%), actualization (70%) and valuation (78.4%) that were lower in comparison with the previous studies.([20](#_ENREF_20), [21](#_ENREF_21), [23](#_ENREF_23))

In the readiness subscale**,** the majority of participants (93.3%) reported a medium level of skill, mastery and competence in performing their duties with a total mean subscale score of 35.79 (SD = 4*.*85), which means they didn’t consider themselves enough qualified to meet the whole requirements for decision making and performing Independently. This finding may be explained by the limited quality continuing education programs, autocratic leadership styles, and doctor-led management models in Iran’s hospitals that have reduced self-esteem of the nurses and opportunity for competence development([24](#_ENREF_24))

In contrast to our finding, other studies ([20](#_ENREF_20), [21](#_ENREF_21), [23](#_ENREF_23), [25](#_ENREF_25)), indicated that nurses have a high level of confidence in their patient practice skills, mastery, and knowledge.

The mean score of empowerment in this study was indicate the majority of the participants perceive that they have a moderate level of empowerment (82%) compared to high levels in some previous studies ([23](#_ENREF_23), [26](#_ENREF_26)), and lower level in the others ([21](#_ENREF_21)). In fact, the nurses in this study believed that there is not enough power or legal support for their autonomous practices. According to previous studies in Iran, Excessive control and supervision over nursing practice and interrogation of independent clinical decisions were perceived as major barriers to gaining autonomy (Allahbakhshian, 2017). Another indication of the moderate levels of empowerment among the participants can be a lack of clarity about the scope of nursing practice and unclear job descriptions. Nurses should be authorized to practice within the defined scope of practice (ANA).

The results of the Actualization subscale suggest a moderate levels of decision making, responsibility, and accountability (21.95), different from the previous studies which indicate a high level of actualization([20](#_ENREF_20), [23](#_ENREF_23), [27](#_ENREF_27)) In this regards, Wade (1999) labeled accountability as a consequence of autonomy([28](#_ENREF_28)).

The results of the Valuation subscale (M = 9.22, SD = 1.71) indicate the majority of the nurses who participated in this study have a medium level (78.4%) of self-respect, satisfaction, and achievement. In concordant to the Bahadori. Et al, 2009, Cajulis. Et al, 2007, Maylone. Et al, 2011, and Ulrich, 2003 studies which suggested the high score in this subscale ([19-21](#_ENREF_19), [23](#_ENREF_23)). Although similar to the other subscales score in the present study, the valuation subscale score was medium; it was lower in comparison with the other subscales. Whereas in the other related studies the empowerment subscale were identified as the lowest mean score ([19-21](#_ENREF_19), [23](#_ENREF_23)).

In respect of relation between demographic data and total score of autonomy, there was significant relationship between Practice setting, gender, work experience and autonomy. This result is inconsistent with the studies that showed that work experience is not significantly related to autonomy ([21](#_ENREF_21), [23](#_ENREF_23)). Contradictorily, the study of Maylone. Et al, 2011. Finally, no significant relationship was found between the variables of age, level of education, appointment level, and autonomy. This finding is consistent with another studies ([21](#_ENREF_21), [23](#_ENREF_23), [29](#_ENREF_29)).

**Conclusion**

As can be seen, the majority of Iranian nurses in the present study have lower perceived autonomy in comparison with the nurses in developed countries. This result indicates the need for policymakers and health care manager’s attention to develop nursing programs and work environment based on the professional autonomy requirements. Beside, further studies are needed to explore the findings from this research and to formulate strategies to enhance autonomy in the nurses which can effectively improve job satisfaction, and quality of care in the clinical setting.

**Conﬂict of interest**none declared.

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