Correlation of happiness and professional autonomy in Iranian nurses

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Abstract
Background: Happiness and professional autonomy in nurses increase job satisfaction, reduce turnover and improve the quality of healthcare services.

Aims: The present study aimed to examine the correlation between happiness and professional autonomy in Iranian nurses.

Methods: This descriptive-correlational study was conducted on 371 nurses in 2017. The participants were selected via two-step random sampling. Data were collected using the Oxford Happiness Inventory and Dempster Practice Behaviors Scale within the score ranges of 0–87 and 30–150, respectively. Data analysis was performed in SPSS version 16.

Results: Mean score of happiness among nurses was 43.1 ± 13.3 and the mean score of professional autonomy was 96.4 ± 13.5. According to Pearson's correlation coefficient, professional autonomy had a positive, significant correlation with happiness ($r = 0.481$; $p < 0.001$). In addition, the results of regression analysis indicated that professional autonomy could predict 23% of the happiness variance in the nurses ($p < 0.001$).

Conclusions: According to the results, the level of happiness in Iranian nurses was favourable, whereas the level of professional autonomy was moderate. Considering the significant correlation

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between happiness and professional autonomy, attention should be paid to the simultaneous enhancement of these variables to improve the efficiency of nursing care.

Keywords
happiness, nurses, professional autonomy, teaching hospitals

Introduction

In every country, the healthcare system is considered one of the foremost areas for the sustainable development of health, which is directly associated with human health (Friedberg et al., 2014). In the healthcare system, nurses constitute the largest part of the healthcare and treatment team (Matthews, 2017; Kurtzman et al., 2010), having the most significant share in the provision of high-quality care to patients in hospitals.

Several factors affect the performance of nurses in care provision to patients, including organisational policies and leadership styles, professional challenges, self-growth, workload, co-workers and managers, relationships with patients, occupational stress, job satisfaction, decision making, autonomy and promotion. Lack of attention to these factors may diminish the efficiency and effectiveness of every healthcare system (Awases et al., 2016; Duffy, 2018; Lin et al., 2015; Sharma and Dhar, 2016).

Furthermore, health problems, particularly mental health issues, are among the other factors that decrease the productivity and deteriorate the performance of nurses. In this regard, some researchers have emphasised the key role of depression compared to other psychological disorders (e.g. Letvak et al., 2011; Nyamwata, et al., 2017).

Happiness is one of the components of mental health that could enhance job satisfaction, performance and overall mental health (Talebzadeh and Samkan, 2011; Hills and Argyle, 2001). As a psychological characteristic happiness has long attracted the attention of researchers. Due to the dependence of happiness on cultural and social parameters, it is difficult to propose an exact definition for this concept. According to Frey (2018), happiness in Western societies is defined as the positive emotions associated with optimism, whereas in Eastern communities, this concept is defined as a state of harmony and peace. Frey considers pride as the main index associated with happiness in Western countries, whereas these indices have been reported to be benevolence and friendliness to other people in Eastern societies.

Veenhoven (1988) defines happiness as the judgment of individuals regarding the desirability of the quality of their entire life, believing that happiness is crucial to mental development and coping with psychological pressures as the lack of happiness in life is considered stressful. In other words, happiness is an internal state, encompassing positive emotions, satisfaction and an absence of negative emotions, such as depression (Argyle et al., 1989), which plays a determinant role in the health of individuals and the community (Sabatini, 2014). Happiness may open an individual's mind to stimuli, creating opportunities for broader attention to the environment, thereby enhancing creativity (Chen et al., 2018).

According to a literature review, there have been limited studies within the past decade regarding the level of happiness and its influential factors in Iranian nurses. Based on the previous studies, the happiness level is average to low in the Iranian population and healthcare personnel regardless of their position and occupation in healthcare centres (Montazeri et al., 2012; Rajabi et al., 2012).

The review of the literature for the articles focusing on the factors associated with happiness in nurses, especially the correlation with professional autonomy, has indicated there are few reliable, high-quality studies published in English in this regard. In a traditional literature review, Farsi et al. (2010) reported limited clinical autonomy and authority to be the most important issues associated with unhappiness. Meanwhile, previous studies have indicated that autonomy is a critical item associated with nursing professionalism, playing a key role in the performance of nurses in providing high-quality care to patients.

Professional autonomy results in a sense of power and accountability (Gagné and Bhave, 2011), increases job satisfaction (Asegid et al., 2014; Pron, 2013), assures commitment to the organization, and increases the willingness to remain in the workplace (Enns et al., 2015; Sabanciogullari and Dogan, 2015). In contrast, lack of professional autonomy leads to a sense of deprivation, dissatisfaction, non-commitment, and demotivation (Mastekaasa, 2011). Training on professional autonomy for nurses could increase the sense of trust and respect, improve professional skills and competence, and promote effective communication with colleagues and physicians (Mahdizadeh et al., 2015; Papathanassoglou et al., 2012). Evidence suggests a significant difference in the professional autonomy of nurses in developed countries, such as the United States (Petersen et al., 2015; Tanaka et al., 2015) compared to developing countries, such as Iran (Amini et al., 2015; Iranmanesh et al., 2014). In developing countries, lower levels of professional autonomy have been reported compared to developed countries.

To date, no studies have focused on the correlation between happiness and professional autonomy in Iranian nurses. The present study aimed to assess the association between happiness and professional autonomy in Iranian nurses and determined the level of happiness of these nurses.

Materials and methods

Sampling and study setting

This descriptive-correlational study was conducted on 371 nurses employed in the hospitals affiliated to Zanjan University of Medical Sciences, Iran in 2017. The sample population included 1492 nurses employed in the hospitals affiliated to Zanjan University of Medical Sciences.

Considering the significance level of 0.05 and test power of 0.80, the minimum required sample size was calculated to be 360 subjects. The participants were selected via two-step random sampling given the extensive geographical diversity of the research environments. Initially, three hospitals were selected out of eight via simple random sampling based on the similarities of the studied healthcare centres in terms of structure and the demographic characteristics of the nurses. Afterwards, considering the probability of lack of completing the questionnaires, inadequate participation of the samples and inclusion criteria of the study (minimum of BSc degree in nursing and 3 years of nursing experience), 400 nurses were selected via simple random sampling and enrolled in the study. At the next stage, 400 questionnaires were copied and distributed, 371 of which were completed and analysed.

Research instruments

Data were collected using a questionnaire consisting of three sections. The first section contained demographic data on age, gender, marital status, clinical work experience,

education level, practice setting, work shifts, type of employment, job satisfaction and occupational position in the ward and hospital. The second section of the questionnaire assessed the professional autonomy of the nurses. To this end, we used the Dempster Practice Behaviors Scale (DPBS) after obtaining the required permit from the developer (Professor Dempster). DPBS was developed in 1991 and consists of 30 items that are scored based on a five-point Likert scale within the range of 30–150. Higher scores in DPBS indicate a higher level of professional autonomy. It is also notable that five items in this scale (items 8, 13, 17, 26, and 28) are scored inversely.

DPBS explains the observed and latent behaviour associated with professional autonomy in nurses, as well as its subset disciplines. To prevent errors in the responses, we intentionally avoided using the term 'autonomy' in the title of the scale. The content validity, factor validity, construct validity and reliability of DPBS have been confirmed by Dempster and its validity and reliability have been confirmed for the American population (Dempster, 1990). For Iranian nurses, the validity and reliability of DPBS were assessed and confirmed via translation and re-translation, reviewing expert opinions, and based on the internal consistency coefficient reported by Amini et al. (2015). In the present study, the reliability coefficient of DPBS was determined based on internal consistency and Cronbach's alpha coefficient (0.85).

The third section of the data-collection tool measured the level of happiness in the nurses, and the Oxford Happiness Inventory (OHI) was used for this purpose. OHI is a valid tool for measuring happiness. This scale was developed by Argyle, Martin and Crossland in 1989. OHI consists of 29 items that are scored on a four-point Likert scale within the range of 0–87. Scores 0–28 indicate low happiness levels, scores 29–57 show high happiness levels and scores 58–87 show very high happiness levels (Argyle et al., 1989). In Iran, OHI has been translated by Alipour et al. (2010) and its validity and reliability have been confirmed. In the present study, the reliability coefficient of OHI was obtained based on Cronbach's alpha (0.93).

To collect the data from 4 April to 5 June 2017, the researcher (SRM) referred to the hospitals in Zanjan province, distributed 380 questionnaires among the subjects and specified the qualifications. In total, 371 questionnaires were completed and collected.

Ethical considerations

This study was approved by the Ethics Committee of Zanjan University of Medical Sciences, Iran (code of permit: ZUMS.REC.1395.300). After explaining the objectives of the study, informed consent was obtained from the participants. The principle of anonymity was considered and the questionnaires were provided to the nurses in the hospital. In addition, the researcher was available to the participants for uniform answers to the probable questions while completing the questionnaires.

Statistical analysis

Data analysis was performed in SPSS version 16. After confirming the normal distribution of the data based on the Kolmogorov-Smirnov test, Pearson's correlation coefficient was used to determine the correlation between happiness and professional autonomy. Moreover, linear regression analysis was used to predict happiness based on professional autonomy. Cronbach's alpha coefficient was also applied to determine the internal consistency of the instrument. In all statistical analyses, the significance level was considered at 0.05.

Results

The demographic and general characteristic of the participants are presented in Table 1. Mean scores of professional autonomy and happiness in the nurses were 96.4 ± 13.5 and 43.1 ± 13.3, respectively. The scores of professional autonomy and happiness are shown in Tables 2 and 3. According to the information in Table 4, there was a positive, significant correlation between professional autonomy and happiness in the nurses ($p < 0.01$; $r = 0.481$). With regard to the correlation between professional autonomy and happiness, the results of linear regression showed that professional autonomy could predict 23% of the happiness variance in the nurses (Table 5).

Discussion

The present study aimed to assess the correlation between happiness and professional autonomy in Iranian nurses in 2017. According to the findings, the mean score of happiness in the nurses was 43.1 ± 13.5, which was indicative of moderate happiness levels. According to a literature review regarding the happiness levels in various research populations, happiness, similar to other psychological variables, is completely dependent on

Table 1. The demographic and general characteristics of the participants ($n = 371$).

Descriptive details	State	Frequency (%)
Sex n (%)	Female	322 (86.79)
	Male	49 (13.21)
Marital status n (%)	Single	117 (31.54)
	Married	254 (68.46)
Type of employment n (%)	Fixed	60 (16.17)
	Experimental	87 (23.45)
	Contract	224 (60.37)
	Official	3 (0.8)
Level of education n (%)	Bachelor's degree	352 (94.88)
	Master's degree	19 (5.12)
Position in the ward n (%)	Nurse manager	19 (5.12)
	Staff nurse	21 (5.66)
	Nurse	331 (89.22)
Practice setting n (%)	Noncritical	255 (68.73)
	Critical	116 (31.26)
Shift n (%)	Only day shift	32 (8.62)
	All combinations	329 (88.68)
	Only night shift	10 (2.70)
Job satisfaction n (%)	Strongly disagree	73 (19.68)
	Disagree	96 (25.88)
	Not agree and not disagree	130 (35.04)
	Agree	69 (18.6)
	Strongly agree	3 (0.8)
Age (mean $\pm$ SD)	32.02 ± 7.08	
Clinical work experience (mean $\pm$ SD)	8.17 ± 6.93	

Table 2. Participants' scores in the professional autonomy scale.

Scale	Range	Frequency (%)	Mean ± SD
Readiness subscale			34.78 ± 6.51
Low	11–25	28 (7.54)	
Moderate	26–40	273 (73.58)	
High	41–55	70 (18.86)	
Empowerment subscale			19.76 ± 2.87
Low	7–16	41 (11.05)	
Moderate	17–26	325 (87.6)	
High	27–35	5 (1.34)	
Actualisation subscale			31.72 ± 5.28
Low	9–20	6 (1.61)	
Moderate	21,932	203 (54.71)	
High	33–45	162 (43.66)	
Valuation subscale			10.01 ± 2.43
Low	3–7	49 (13.2)	
Moderate	8–11	227 (61.18)	
High	12–15	95 (25.6)	

Table 3. The levels of participants' happiness.

Scale	Frequency (%)
The level of happiness	
Low	28 (7.54)
Acceptable	273 (73.58)
Very good	70 (18.86)

Table 4. Descriptive statistics and Pearson correlation coefficients for the professional autonomy and happiness.

Variable	Mean	SD	Pearson's correlation coefficient	Sig.
Happiness	43.11	13.27	$r = .481$	$p < .001$
Professional autonomy	96.35	13.52		

Table 5. Linear regression analysis of the influence of professional autonomy on happiness.

			Model summary			ANOVA		Coefficients				
Model	Predictive variable	Criterion variable	R .481	R^2 .232	R justified .230	F 111.23	Sig of F $p < .000$	B	SE B	B	t	Sig.
1	Fixed amount							75.20	2.10		35.80	$p < .000$
	PA	Happiness						.49	.047	.481	10.54	$p < .000$

ANOVA: analysis of variance.

underlying factors. Consistent with the results of the present study, an acceptable level of happiness has been reported in the other populations in Iran, as well as other countries, such as the nurses in southern Taiwan (Huey-Ming Tzeng, 2002), university medical students (Rahighee, 2015), and nurses in China (Meng et al., 2015). In another study, Bahrami et al. (2011) evaluated graduate and postgraduate students in Isfahan University of Medical Sciences (Iran), whereas Peetaragorn et al. (2012) assessed the clinical practice of Thai nursing students and Francis et al. (2017) investigated the students of the Turkish State University, reporting higher happiness levels compared to the current research. This discrepancy could be due to the differences the age, occupation status, education level and cultural background of the studied populations. It is also notable that increased age is associated with mood disorders (e.g. depression) and the subsequent reduction in the happiness level (Koffman et al., 2013; Twenge et al., 2016).

In the present study, the mean score of professional autonomy in the nurses was 96.4 ± 13.5, which indicated a moderate level. The comparison of this finding with the previous studies in this regard (Amini et al., 2015; Iranmanesh et al., 2014) indicated the perceived autonomy in Iranian nurses is significantly lower than the nurses in the United States (Petersen et al., 2015; Tanaka et al., 2015). This discrepancy could be attributed to various factors, such as ambiguity in nursing tasks (Farsi et al., 2010), lack of nursing professional development (Nikpeyma and Ashktorab, 2012), job dissatisfaction (Farsi et al., 2010), negative attitudes of physicians toward nurses (Jasemi et al., 2013), poor inter-profession cooperation, physician-oriented attitude of doctors (AllahBakhshian et al., 2017), lack of teamwork (Manoochehri et al., 2014), organisational factors (Musavi, 2016), lack of support on behalf of managers, inadequate time for interactions and lack of empowerment and education in nurses (Sodeify et al., 2013), which altogether decrease the level of professional autonomy in Iranian nurses compared to American nurses. Nevertheless, studies have suggested a close association between the quality of the provided nursing care and degree of perceived autonomy by nurses (Dorgham and Al-Mahmoud, 2013; Friedberg et al., 2014). One of the reasons could be the poor quality of nursing care in Iran as reported in the previous studies (Jafaraghaee et al., 2015). Nonetheless, comparison of the mean score of professional autonomy in the nurses in the current research with the findings of Papathanassoglou et al. (2012) and Iliopoulou and While (2010) suggested our findings regarding the level of professional autonomy in Iranian nurses are in line with the results regarding the nurses in European communities.

The results of the present study indicated a positive, significant correlation between professional autonomy and happiness, so that the happiness level of the nurses could be predicted by the level of their perceived autonomy in the workplace. According to our literature review, there are no valid comparative studies in this respect that could be attributed to the cognitive dimensions of happiness (e.g. creativity) as denoted in the previous studies (Yuan, 2015). Creativity is one of the main components of professional autonomy (Fisher, 2010) and some researchers believe it plays a pivotal role in the formation and development of autonomy (Taylor, 1999). Therefore, it is plausible that autonomy could make humans happy through different manners, such as creativity.

The main limitations of the current research were the psychological state of the respondents and lack of similar studies to determine the correlation between professional autonomy and happiness, which hindered the connectivity of our findings to the body of the existing knowledge in this regard.

Conclusion

According to the results, the happiness level and professional autonomy of Iranian nurses were moderate. Moreover, happiness had a positive, significant correlation with professional autonomy. Therefore, it is recommended that specific practices be implemented to increase professional autonomy in these healthcare providers in Iran. Such measures may include the clarification of nursing tasks, planning to consolidate the nursing profession in Iran in the future, public education aimed at strengthening the virtue of the nursing position in Iran, changing the attitude of physicians towards nurses, provision of specific areas for inter-professional collaboration, promotion of clinical skills in nurses and increasing their knowledge level. It is hoped that such efforts help to optimise the quality of nursing services.

Key points for policy, practice and/or research

- The happiness level of Iranian nurses was moderate.
- The level of professional autonomy in Iranian nurses was moderate.
- Professional autonomy was correlated with happiness and happiness in nurses maybe be predicted by their level of perceived autonomy in the workplace.
- It is recommended that specific practices be implemented to increase professional autonomy in nurses in Iran. Such measures may include the clarification of nursing tasks, planning to consolidate the nursing profession in Iran and public education aimed at strengthening the virtue of the nursing position in Iran.

Author contributions

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethics

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