

Gerontological Nurses' Feeling of Personal Achievement at Work and Their Emotional Intelligence

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Abstract

Background: The universal population aging is associated with rising prevalence of chronic physical and mental disorders. The provision of nursing care to elderly people is challenging. So that the study **Aim was** to investigate the influence of emotional intelligence (EI) on gerontological nurses' feeling of personal achievement (PA) at work. It is hypothesized that the scores of EI and PA are positively correlated. **Subjects and methods:** This cross-sectional analytic study was conducted in departments and units providing long-term care for geriatric patients at Beni-Suef University Hospitals on a convenience sample of 157 nurses providing care for these patients. Data were collected using a self-administered questionnaire that included the Trait Emotional Intelligence Que-Short Form to measure EI, and the Personal Achievement scale, a part of Maslach Burnout Inventory. All research ethics were complied with. **Results:** Most nurses were female (89.2%), with diploma degree (80.9%) nurses, in age range 20-57 years. Only 11.5% of the nurses had high EI, with mean 4.51 from a maximum score of 7.00; 21.0% of them had high feeling of PA, with a mean score 31.68 out of a maximum of 48.00. PA score has statistically significant positive correlations with all EI domains and with nurse's age and experience years. The multivariate analysis identified EI score as a positive predictor of PA, particularly the domains of self-control and wellbeing. **Conclusion and recommendations:** Nurses in the study settings have low EI and feeling of PA, EI is a positive predictor of their feeling of PA. Staff development activities and training in EI is recommended for gerontological nurses. Intervention research is suggested to examine the effectiveness of training gerontological nurses in EI on elderly patients' satisfaction with nursing care.

Keywords: Gerontological nurses, Personal Achievement, Emotional Intelligence

Introduction

The worldwide population aging poses great challenges to healthcare systems and providers. It is associated with rising prevalence of chronic physical and mental disorders (*Schiavone and Ferretti, 2021*). Research demonstrated increasing secular trends in chronic diseases such as diabetes (*Li et al., 2021*), neurodegenerative disorders as dementia and Alzheimer's disease (*Adolfo., 2021*), in addition to cancer (*Fusco et al., 2021*) as well as nutritional problems (*Brglez., 2021*). Moreover, elderly people are more vulnerable to acute illness and have worse prognosis as shown in COVID-19 pandemic (*Yuan et al., 2021*). In addition, elderly people do not constitute a homogeneous group with similar need and demands, which adds to their care challenges (*Morris et al., 2018*).

Globally, there is a shortage in nursing staff. This is partly due to high turnover among nurses that has been related to high job stress and low

job satisfaction. This could be attributed to lack of preparation and/or staff development, particularly in the nursing profession (*Gu et al., 2020*). According to *Hovey and Shropshire (2021)*, newly graduated nurses lack interest in gerontological nursing as an area of specialization. The curricula of nursing schools could impede students' choice of gerontological nursing as a career (*Garbrah et al. 2017*). Thus, *Sakamoto (2021)* emphasized the role of nursing educators in motivating students to select this career specialty.

The provision of nursing care to elderly people is challenging. It may need new competencies different from those of traditional nursing (*Maier et al., 2017*). Such competencies encompass attitudinal and ethical, interactional, evidence-based care, pedagogical and leadership and development ones (*Kiljunen et al., 2017*). Moreover, the emotion-related skills are crucial in gerontological nursing. These nurses need to

possess a high level of emotional intelligence to be able to provide good care with no additional job stress (*Bahrami et al., 2019*).

Emotional Intelligence (EI) is an important capability relating emotions to reasoning, enabling a person to understand own feelings and emotions, and consequently directing his/her actions (*Fteiha and Awwad, 2020*). It was first introduced by *Salovey and Mayer (1990)* as a set of abilities related to emotions and emotional information processing. The term refers to the ability to control self and others' emotions, to distinguish them, and reflect this on own thinking and action (*Gong et al., 2019*). It has key areas, namely self-awareness, social skills, self-regulation, motivation, and empathy (*Suleman et al., 2019*). People having high EI have good achievement at work (*Sanchez-Gomez and Bresó, 2020*).

Among healthcare professionals, high EI is associated with lower stress, more patient satisfaction, and quality care (*Oyur, 2017*). They are more productive and less likely to quit (*Mérida-López and Extremera, 2020*). Conversely, those with low EI cannot communicate effectively with clients or peers, leading to more care errors, poor patient outcomes, and higher costs of care (*Giménez-Espert et al., 2020*). Hence, high EI would lead to better feeling and satisfaction of personal achievement (*Danaci and Koç, 2021*). This is of particular importance in gerontological nursing associated with higher workload and more job stress. Therefore, seeking the importance of emotional intelligence in gerontological nurses' feeling of personal achievement at work is deemed of importance.

Aim of the Study

This study aimed to investigate the influence of emotional intelligence on gerontological nurses' feeling of personal achievement at work. It is hypothesized that the scores of emotional intelligence and personal achievement are positively correlated.

Subjects and Methods

Research design and setting: The study was conducted using a cross-sectional analytic design. The settings included the departments and units providing long-term care for geriatric patients at Beni-Suef University Hospitals, whether medical or surgical.

Subjects: The sampling population consisted of the nurses in the working in these settings

during the time of the study and providing care for geriatric patients. The sample size was computed to estimate a correlation coefficient of 0.24 or stronger between the scores of emotional intelligence and personal achievement. Using Open-Epi software program, the required sample size was 134. This was increased to 157 to account for a non-response rate of approximately 10%. The nurses were recruited in the sample using a non-probability convenience sampling technique.

Data collection tools: A self-administered questionnaire was used in data collection. It consisted of the following sections.

Section I: Nurse demographics: This asked about age, gender, nursing qualification, experience years, marital status, place residence, income, and previous attendance of training courses of relevance.

Section II: Trait Emotional Intelligence Questionnaire-Short Form (*Petrides, 2009*): This tool measures EI through 30 statements scored on a seven-point numeric scale from 'completely agree' to 'completely disagree.' These items measure 15 traits of EI, which are categorized into four main domains, in addition to two traits independent of EI, namely adaptability and self-motivation. The four main domains are: 1) Emotionality (8 items covering the traits of empathy, emotion perception [self and others], emotion expression, and relationships; 2) Wellbeing (6 items covering the traits of self-esteem, happiness, and optimism; 3) Self-control (6 items covering the traits of stress management, emotion regulation, and impulsiveness control; 4) sociability (6 items covering the traits of assertiveness, social awareness, and motion management [others]).

For scoring, the responses from 'completely agree' to 'completely disagree' were scored from "1" to "7," with reverse scoring for the negative statements so that higher scores point to higher EI. Then, the scores of each domain and of the total scale were converted into percent scores and dichotomized into high (75%+) and low (<75%) a per tool manual instructions.

Section III: Personal achievement scale: This was a part of the Maslach Burnout Inventory (MBI) (*Maslach et al., 1996*). This part consists of 8 items assessing respondent's feeling of personal achievement at work on a six-point scale from 'never' to 'every day.' These items cover achievements in dealing with colleagues and patients such as "I am easily able to create a

relaxed atmosphere with my colleagues or clients,” feeling of achievement such as *“I have accomplished many worthwhile things in the job,”* and feeling of vigor *“I feel full of energy.”*

For scoring, the responses from ‘never’ to ‘every day’ were respectively scored from “0” to “6” so that a higher score indicates higher level of feeling of personal achievement. The scores of the 8 items were summed and means, standard deviations and medians were computed. Then, the total score was dichotomized into high (40+) and moderate/low (<40) according to the tool manual instructions. For item analysis, each item response was dichotomized into: “agree to happen more than once per week” and “once per week or less frequently.”

Validity and Reliability: The validity and reliability of the two tools used are previously documented (Petrides, 2009; Maslach et al., 1996). They were translated into Arabic using the translate-back-translate method to ascertain validity according to Behling and Law (2000). The reliability of the two tools was assessed by measuring their internal consistency. They had good levels of reliability with Cronbach's Alpha coefficients 0.738 and 7.50 respectively.

Pilot study: A pilot study was conducted on a sample representing about 10% of the calculated sample size to examine the tool clarity and study feasibility. Since no modifications were needed, the pilot subjects were included in the main study sample.

Administrative and ethical considerations: The researcher secured all necessary official permissions from relevant authorities in the setting. An approval of the study was obtained from the scientific research and ethics committee of the Faculty of Nursing, Beni-Suef University. Each nurse was asked to provide an oral informed consent for participation in the study from after being briefed about the study purpose and its process and being informed about their rights to refuse or withdraw at any time with no reason given. The researcher also ensured full confidentiality and anonymity of any obtained data.

Fieldwork: The researcher met with the medical and nursing directors of the study setting to arrange for the process of data collection in order to avoid any work interruptions. Then, the nurses were recruited in the sample. They were met individually, got an explanation of the study aim and data collection. Those who gave their

oral informed consent to participate were handed the data collection sheet and instructed its filling. The researcher was available to respond to any questions and collected the filled forms and checked for their completeness. The fieldwork lasted for 3 months from March to May 2021.

Statistical analysis: Data entry and statistical analysis were performed on SPSS 20.0 statistical software package. Quantitative continuous data were compared using Student t-test for comparisons between two independent groups. Qualitative categorical variables were compared using chi-square or Fisher exact tests as suitable. The inter-relationships among quantitative variables and ranked ones were assessed by Spearman rank correlation analyses. Multiple linear regression analysis was used to identify the independent predictors of the scores of EI and personal achievement. The level of statistical significance was set at p-value <0.05.

Results

Most of the nurses in the study sample were female (89.2%), diploma degree (80.9%) nurses, and their age ranged between 20 and 57 years. Their median experience years was 7.0. Most of them were married (73.2%), living in rural areas (56.1%), and had sufficient income (75.2%). Only a few of them attended training in job performance (31.8%) or geriatric care (19.7%).

As presented in Table 2, the nurses in the study sample had very low EI in all domains. This ranged between 11.5% for the domain of emotionality and 31.8% for that of wellbeing, with means 4.34 and 4.78 respectively of a maximum score of 7.00. In total, only 11.5% of the nurses had high EI, with mean 4.51.

Table 3 demonstrates generally low feeling of personal achievement at work among the nurses in the study sample. Thus, only less than one-third of them agreed upon all items to have occurred more than once per week. The highest (31.8%) were related to the items *“I have accomplished many worthwhile things in the job”* and *“I feel full of energy.”* On the other hand, the lowest responses were related to the items *“I can easily understand what my colleagues or clients feel”* (15.9%) and *“I feel refreshed when I have been close to my colleagues or clients at work”* (18.5%). In total, only 21.0% of them were having high feeling of personal achievement, with a mean score 31.68 out of a maximum of 48.00.

Concerning the relations between nurses' EI and feeling of personal achievement, Table 4

shows that a high level of EI is always associated with high level of personal achievement. These relations were statistically significant for all domains and for the total EI. The only exception was in the domain of emotionality ($p=0.538$).

As displayed in Table 5, the four domains of EI are inter-correlated with statistically significant positive correlations among each other. The strongest correlation was between the domains of sociability and self-control ($r=0.571$). Moreover, all EI domains and total EI have statistically significant positive correlations with the score of personal achievement. The table also indicates that the score of personal achievement has statistically significant positive correlations with nurse's age and experience years. Meanwhile, none of the EI domains or total had a significant correlation with any of the nurses' characteristics.

The multivariate analysis (Table 6) identified being married and having previous training in job performance as the statistically significant positive predictors of the nurses' score of EI. However, the value of r-square indicates that these two variables explain only 6% of the

variation in the EI score. Meanwhile, none of the nurses' other characteristics had a significant influence on their EI.

As regards personal achievement, Table 7 shows that nurses' experience years and previous training in job performance were the statistically significant positive predictors of the personal achievement score. The inclusion of the total EI score in the analysis confirmed the influence of experience years, and of training in geriatrics. Meanwhile, the EI score was the strongest positive predictor as indicated by the value of the standardized beta coefficient. Moreover, the r-square of the model increased from 0.10 to 0.254 by adding EI to the model.

Looking at the effect of individual EI domains on personal achievement, the same table identified that the scores of the EI domains of self-control and wellbeing were statistically significant positive predictors of the score of personal achievement, in addition to nurses' experience years and previous training in geriatrics.

Table 1: Socio-demographic characteristics of nurses in the study sample (n=157)

	Frequency	Percent
Age:		
<40	77	49.0
40+	80	51.0
Range	20-57	
Mean±SD	31.7±8.4	
Median	30.0	
Gender:		
Male	17	10.8
Female	140	89.2
Nursing qualification:		
Diploma	127	80.9
Bachelor	30	19.1
Experience years:		
<5	41	26.1
5-	55	35.0
10+	61	38.9
Range	<1-39	
Mean±SD	10.3±8.5	
Median	7.0	
Marital status:		
Unmarried	42	26.8
Married	115	73.2
Income:		
Insufficient	39	24.8
Sufficient	118	75.2
Residence:		
Urban	69	43.9
Rural	88	56.1
Attended training in:		
Job performance	50	31.8
Geriatric care	31	19.7

Table 2: Emotional intelligence among nurses in the study sample (n=157)

High (60%+) emotional intelligence:	Score (max=7)			High (=>mean+1 SD)	
	Mean	SD	Median	No.	%
Emotionality	4.34	0.74	4.50	18	11.5
Wellbeing	4.78	0.84	4.83	50	31.8
Self-control	4.39	0.96	4.33	32	20.4
Sociability	4.64	0.91	4.67	42	26.8
Total	4.51	0.62	4.57	18	11.5

Table 3: Personal achievement among nurses in the study sample (n=157)

Personal achievement	Frequency	Percent
Agree to happen more than once/week:		
▪ I can easily understand what my colleagues or clients feel	25	15.9
▪ I look after my colleagues' or clients' problems very effectively	49	31.2
▪ I am easily able to create a relaxed atmosphere with my colleagues or clients	48	30.6
▪ In my work, I handle emotional problems very calmly	48	30.6
▪ I have accomplished many worthwhile things in the job	50	31.8
▪ Through my work, I feel that I have a positive influence on people	45	28.7
▪ I feel refreshed when I have been close to my colleagues or clients at work	29	18.5
▪ I feel full of energy	50	31.8
Total:		
Moderate/low (score <40)	124	79.0
High (score 40+)	33	21.0
Score (max=48):		
Mean±SD	31.68±8.55	
Median	31.00	

Table 4: Relations between nurses' personal achievement and their emotional intelligence domains

Emotional intelligence domains	Personal achievement				X ² test	p-value
	Moderate/Low		High			
	No.	%	No.	%		
Emotionality:						
Low	111	89.5	28	84.8	Fisher	0.538
High	13	10.5	5	15.2		
Wellbeing:					9.918	0.002*
Low	92	74.2	15	45.5		
High	32	25.8	18	54.5		
Self-control:					4.319	0.038*
Low	103	83.1	22	66.7		
High	21	16.9	11	33.3		
Sociability:					13.076	<0.001*
Low	99	79.8	16	48.5		
High	25	20.2	17	51.5		
Total EI:					14.608	<0.001*
Low	116	93.5	23	69.7		
High	8	6.5	10	30.3		

(*) Statistically significant at $p < 0.05$

Table 5: Correlation matrix of the emotional intelligence scale domains with their personal achievement scores and their characteristics

	Spearman's rank correlation coefficient					
	Emotional intelligence domains				Total	
	Emotionality	Wellbeing	Self-control	Sociability	Emotional Intelligence	Personal Achievement
Emotional intelligence:						
▪ Emotionality	1.000					.174*
▪ Wellbeing	.367**	1.000				.353**
▪ Self-control	.324**	.315**	1.000			.358**
▪ Sociability	.376**	.365**	.571**	1.000		.310**
Total						.390**
Personal characteristics:						
▪ Age	.056	.001	.120	.107	.082	.249**
▪ Qualification	-.052	.045	-.035	-.103	-.045	-.149
▪ Experience years	.034	-.003	.094	.150	.078	.285**
▪ Income	-.045	.119	-.043	.059	.023	-.053

(*) Statistically significant at $p < 0.05$

(**) Statistically significant at $p < 0.01$

Table 6: Best fitting multiple linear regression model for the emotional intelligence score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	4.265	0.099		42.971	0.000	4.069	4.461
Married	0.246	0.110	0.176	2.245	0.026	0.030	0.463
Training in performance	0.207	0.104	0.156	1.989	0.048	0.001	0.413

r-square=0.06

Model ANOVA: F=4.55, p=0.012

Variables entered and excluded: age, gender, qualification, experience, marital status, residence, income, training courses in geriatric care

Table 7: Best fitting multiple linear regression model for the personal achievement score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Personal achievement score							
Constant	28.38	1.09		26.124	<0.001	26.24	30.53
Experience years	0.21	0.08	0.21	2.743	0.007	0.06	0.37
Training in performance	3.42	1.42	0.19	2.409	0.017	0.62	6.22
r-square=0.10 Model ANOVA: F=7.74, p=0.001							
Variables entered and excluded: age, gender, qualification, marital status, residence, income, training courses in geriatric care							
Personal achievement score (including emotional intelligence total)							
Constant	3.09	4.42		0.700	0.485	-5.64	11.83
Experience years	0.24	0.07	0.24	3.418	0.001	0.10	0.38
Training in geriatrics	3.35	1.50	0.16	2.239	0.027	0.39	6.31
EI score	5.64	0.96	0.41	5.873	<0.001	3.74	7.54
r-square=0.254 Model ANOVA: F=17.33, p<0.001							
Variables entered and excluded: age, gender, qualification, marital status, residence, income, training courses in performance, EI domains of emotionality and sociability							
Personal achievement score (including emotional intelligence [EI] domains)							
Constant	6.89	3.89		1.770	0.079	-0.80	14.57
Experience years	0.21	0.07	0.21	2.966	0.004	0.07	0.35
Training in geriatrics	3.82	1.51	0.18	2.541	0.012	0.85	6.80
Self-control score	2.23	0.66	0.25	3.372	0.001	0.92	3.53
Wellbeing score	2.52	0.76	0.25	3.298	0.001	1.01	4.03
r-square=0.251 Model ANOVA: F=12.72, p<0.001							
Variables entered and excluded: age, gender, qualification, marital status, residence, income, training courses in performance, EI domains of emotionality and sociability							

Discussion

This study investigated the influence of emotional intelligence (EI) on gerontological nurses' feeling of personal achievement at work. The research hypothesis was that the scores of EI and personal achievement are positively correlated. The study findings lead to acceptance of this hypothesis by demonstrating such correlation. Additionally, the EI score was identified as a positive predictor of the score of personal achievement.

According to the present study findings, EI tended to be very low among the gerontological nurses in the study setting, with only around one-tenth of them having high total EI. This is a finding of concern given the great importance of EI in the practice of nursing that may influence their performance and wellbeing at work, and consequently their continuance in the nursing career. In fact, research has demonstrated that the nurses having low EI were more likely to leave their jobs (*Majeed and Jamshed, 2021*).

The low level of EI among the present study nurses was particularly evident in the emotionality domain. This domain encompasses traits of empathy reflecting the ability to take other person's perspective, emotion perception or the ability of being clear regarding own and others' feelings, emotion expression or being able to communicate own feelings to others, and relationships trait indicating an ability to satisfy personal relations. All these would need intense training, which is quite lacking among the nurses in the present study sample. In line with this, *Dugué et al. (2021)* stressed that nursing schools should give more emphasis to the subject of emotional intelligence in their curricula.

Concerning the factors influencing the EI scores among the nurses in the current study, the bivariate analyses could not identify any relations of statistical significance. Meanwhile, the multivariate analysis identified the status married and the attendance of previous training in job performance as significant independent positive predictors of EI scores. This again highlights the importance of training and staff development activities. In line with this, a study on Turkish nurses found that nurses' EI significantly improved following a training course in EI (*Teskereci et al., 2020*). Thus, a special importance is given to preparation of gerontological nurses in line with the age-friendly communities movements (*Carmody et al., 2021*).

Meanwhile, the positive effect of being married versus being single, divorced or widow on EI might be explained by the obligations the married person has for his/her spouse and small family, which necessitate the use of all EI traits. A similar finding was reported by *Anyamene and Etele (2020)* in a study on EI and marital satisfaction.

The present study has also assessed gerontological nurses' feeling of personal achievement. The results point to very low levels with only around one-fifth of them having high feeling of personal achievement. The lowest feelings of personal achievement among the nurses in the present study sample were those related to their difficulty understanding the feelings of their peers and patients, as well as their feeling drained and

consumed rather than feeling refreshed at work. This could be attributed to the high workload as well as the nature of geriatric patients who would need special care and patience in dealing with them. In this respect, a study in the United States demonstrated that nurses' performance and achievement improved following their attendance of training in mindfulness (*Zeller et al., 2021*).

As for the nurses' personal factors influencing their feeling of personal achievement, the present study results showed significant positive correlations with their age and experience years. Meanwhile, the multivariate analysis consistently identified the experience years as well as the attendance of training courses as positive predictors of the personal achievement score. The findings underscore the importance of cumulative acquirement of competencies through practical experience in addition to formal training. In agreement with this, a study on nurses in Spain found that their clinical performance and individualized care were significantly influenced by their experience years as well their training (*López-Domínguez and Rodríguez-Martín, 2021*).

The main aim of the current study was to investigate the relation between nurses' EI and feeling of personal achievement. The findings demonstrated statistically significant positive relations and correlations between the scores of personal achievement and the EI total and domains. Moreover, the multivariate analysis identified the score of EI as a significant independent positive predictor of the personal achievement score. Its inclusion increased the model r-square by about 15%, thus indicating its strong influence on the personal achievement score. The findings are quite plausible given the positive impact of EI on person's success in his/her relations with others, and on his/her feelings of own accomplishments.

In congruence with the foregoing present study results, a study in the United States revealed a positive relationship between nurses' clinical performance and their EI level (*Christianson et al., 2021*). On the same line, a study on Turkish nurses reported that those having high EI levels were more compassionately caring for their patients and

thus had better feeling of personal achievement (*Taylan et al., 2021*). Furthermore, a study on Chinese nurses demonstrated that those with high EI level were more able to communicate and had more empathy ability with their patients, and this led to more feeling of high personal achievement and more job satisfaction and wellbeing (*Xie et al., 2021*). Additionally, a study in no nursing personnel in Greece revealed that high EI can significantly decrease their professional boredom, and consequently improve their performance and personal achievement (*Papathanasiou et al., 2021*). Lastly, *Khademi et al. (2021)* in a study of EI and nursing care in Iran demonstrated that EI had a positive impact on nurses' performance.

Conclusion and Recommendations

The study results indicate generally low emotional intelligence and feeling of personal achievement among the nurses in the setting. Emotional intelligence is a positive predictor of their reported feeling of personal achievement. Therefore, staff development activities and training in EI is recommended for gerontological nurses. Also, the EI subject need to be more addressed in nursing graduate and postgraduate curricula. Further intervention research is suggested to examine the effectiveness of training gerontological nurses in EI on elderly patients' satisfaction with nursing care.

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