



Original Article

The relationship between attitudes towards change and five factor personality traits in nurses

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Abstract

Objectives: This study aimed to examine the relationship between nurses' attitudes towards change and their five factor personality traits.

Methods: A descriptive and correlational design was applied for the study. Data were collected from 457 nurses working in six different public hospitals, and the Attitudes towards Change Scale and the Five-Factor Personality Traits Scale were used as data collection tools. Data were analyzed using descriptive statistics, Cronbach's alpha internal consistency analysis and Pearson correlation analysis.

Results: The participants received the highest mean score on the resistance to change sub-dimension (3.15 ± 0.71) of the Attitudes Towards Change Scale and on the agreeableness sub-dimension (3.97 ± 0.50) of the Five-Factor Personality Traits Scale. This study found significant relationships between the sub-dimensions of the two scales.

Conclusion: This study determined that nurses with positive personality traits do not resist change and nurses who were emotionally balanced had positive attitudes towards change. Therefore, personality trait inventories should be used in the selection and appointment of nurses who will work in hospitals experiencing changes.

Keywords: Change; nurse; personality.

What is known on this subject?

- There is no study showing the relationship between nurses' attitudes towards change and personality factors. This study aimed not only to determine attitudes towards change of nurses and their five factor personality traits, but also to examine the relationship between these variables. For this reason, it is thought that this study will contribute to the literature.

What is the contribution of this paper?

- As an answer to this study's main question, the researchers found that nurses with positive personality traits did not show resistance to change, and emotionally balanced nurses had positive attitudes towards all dimensions of change.

What is its contribution to the practice?

- Nurse managers should benefit from the personality trait inventories in recruiting nurses, specifically for those units where changes are experienced often and which require nurses to be more open and flexible. Nurses can be assigned to appropriate units based on the results obtained from the personality trait inventories.

Attitudes towards change are defined as the responses people have to change. In the literature on this subject, it is stated that regardless of what the changes are, members of an organization offer different responses. These responses can be positive or negative, open or closed, strong or weak.^[1,2] Furthermore, the literature emphasizes that the responses of organization members to organizational changes are very important in terms of the success of the organization, and that social, professional, and personal factors affect members' attitudes.^[3]

In the process of change, each individual may exhibit different reactions and attitudes. Various factors, including the type of change, the approaches used by those performing the change, the internal dynamics of the group, and the personality trait of those experiencing the change, have an impact

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on the attitude towards change.^[3,4] Personality traits are some of the most important factors determining attitudes towards change. Personality is defined as the set of a person's behavioral, emotional and cognitive characteristics. A combination of these characteristics indicates who a person is and how he or she will behave.^[5,6] According to another definition, personality is a pattern of emotions and behaviors that derive from individual characteristics. This definition implies that persons have specific attitudes in various situations, and these specific attitudes can be predicted.^[7,8] It has been stated that these differences can be determined using appropriate psychometric methods and can be beneficially used.^[9]

It is emphasized in the literature that changes in the health sector are inevitable, that the attitudes of health professionals towards change are important, and that health workers should be able to adapt to these changes. Although economic, social, and political aspects, which have substantially affected health professionals, are taken into account on attitudes towards changes in the health sector, it is reported that personal factors are often ignored.^[10] For this reason, it is important to determine the attitudes of health professionals toward change and the personal factors affecting their attitudes in order to ensure adaptation to the changes in the field of health and to provide quality services.

In addition, studies have highlighted that changes in health services are related to the structure and processes of organizations, and that health workers play a decisive role in the success of change.^[11] The present study has been carried out with nurses working in public hospitals that have undergone organizational changes as part of the process of becoming administratively and financially autonomous through the Health Transformation Program. There is no study showing the relationship between nurses' attitudes towards change and personality factors. This study, therefore, aimed not only to determine nurses' attitudes towards change and their five factor personality traits but also to examine the relationship between these variables. For this reason, it is thought that the study will valuably contribute to the literature.

Within the scope of the research purpose, the following research questions were developed:

- What are the nurses' attitudes towards change?
- What are the five factor personality traits of the nurses?
- Is there a relationship between nurses' attitudes toward change and their five factor personality traits?

Materials and Method

Type of Study

This is a descriptive and correlational study.

Participants

The population of the study involved nurses who were working in public hospitals in Istanbul and who had experienced

organizational changes as part of the process of the hospital becoming administratively and financially autonomous through the Health Transformation Program. In this study, six hospitals were selected from 62 public hospitals in Istanbul by drawing lot. The sample of the study included 714 nurses who worked in the selected hospitals and met the sampling criteria (i.e. having a nursing degree and working as a nurse for at least one year). Of these 714 nurses, 506 agreed to participate in the study. Appropriate data for evaluation were obtained from 457 nurses. The sampling rate was found to be 64%.

Data Collection Instruments

This study collected data using the Attitudes Towards Change Scale and the Five-Factor Personality Traits Scale.

The Attitudes Towards Change Scale

The Attitudes Towards Change Scale (ATCS) was developed by Seren and Baykal^[12] (2007) to determine healthcare professionals' attitudes towards change. This scale has 29 items and four sub-dimensions, namely, institutional policy in change, change outcomes, resistance to change, and management style in change. The scale response options range between 1 (strongly disagree) to 5 (strongly agree). The mean score for the scale and its sub-dimensions is determined by calculating the averages of the scores for the related items. Since the neutral score for each item, sub-dimension and the whole scale is 3, a mean score higher than 3 indicates that the attitude towards change is more positive. However, if the mean score is lower than 3, it means that the attitude towards change is negative. To determine the reliability of the scale, internal consistency analysis was performed, and it was found that Cronbach's alpha value was 0.92. Cronbach's alpha values for the scale sub-dimensions varied between 0.66 and 0.88.^[12] In this study, it was determined that Cronbach's alpha value for the scale was 0.94, while for the sub-dimensions, these values varied between 0.65 and 0.91.

The Five-Factor Personality Trait Scale

The Five-Factor Personality Trait Scale (FFPTS) was developed by John, Donahue and Kentle^[13] (1991) to classify personality traits. This scale has 44 items under 5 sub-dimensions, namely extraversion, conscientiousness, openness, agreeableness and emotional stability. The scale response options range between 1 (completely disagree) and 5 (completely agree). A score of 3 corresponds to a neutral value. The mean score for the sub-dimensions of the scale is determined by calculating the average of the scores of the related items. Average scores above 3 indicate positive personality traits, while average scores below 3 indicate negative personality traits. Cronbach's alpha values for the scale's sub-dimensions varied between 0.79 and 0.88.^[13]

The Turkish validity and reliability study of the scale was performed by Alkan (2007),^[14] and its Cronbach's alpha coefficient was found to be 0.87. Cronbach's alpha values for the scale's

sub-dimensions varied between 0.67 and 0.89. In the Turkish validity and reliability study of the scale, the original scale's factorial structure and the adapted scale's factorial structure were found to be exactly the same.^[15,16] This study found Cronbach's alpha value of the scale to be 0.88, while these values for the scale's sub-dimensions varied between 0.69 and 0.80.

Data Collection

This study collected data between September 2014 and February 2015. In this period, the researchers visited the health care services managers of each hospital, and the purpose of this study was explained. Then, researchers reached 714 nurses who met the sample criteria, and explained the purpose of this study and that participation is voluntarily. The data collection tools were handed out to 506 nurses who agreed to participate in this study. A one-week period was given for the nurses to respond to the distributed forms. One week later, the nurses were revisited, and the completed forms were collected. Of the 506 forms, 49 were missing data and thus excluded from the evaluation. The data obtained from 457 nurses were analyzed.

Data Analysis

This study used SPSS 21.0 software licensed by Istanbul University for data analysis. The researchers performed Cronbach's alpha internal consistency analysis to determine the reliability of the scales. Descriptive statistics (number, percentage, mean, standard deviation) were used to determine the participants' attitudes towards change and their personality traits. Pearson correlation analysis was used to determine the relationship levels between the ATCS and the sub-dimensions of the FFPTS.

Ethical Considerations

Consent to perform the study was obtained from the Ethical Committee of Istanbul University's Cerrahpaşa Medical Faculty (Decision Date: 04.04.2014). Additionally, the researchers obtained written permissions from the hospitals where this study was conducted. During the data collection process, the purpose of the study was explained to all nurses who met the sample criteria, and voluntary informed consent forms were obtained from all the nurses who agreed to participate.

Results

The Demographic and Occupational Characteristics of the Nurses

The demographic and occupational characteristics of the participants are presented in Table 1. Nearly all of the participants (92.3%) were female, more than half were single (59.1%), and roughly half were over 30 years old (52.8%) and undergraduates (53%). Furthermore, 78.1% were service nurses, and 62.8% had more than 5 years of professional experience. Fi-

Table 1. Demographic and occupational characteristics of the participants (n=457)

The characteristics of participants	n	%
Age (year), Mean±SD	31.63±7.13	
Age groups		
Over 30	241	52.8
30 and under	216	47.3
Sex		
Female	422	92.3
Male	35	7.7
Marital status		
Married	187	40.9
Single	270	59.1
Education level		
Vocational high school of nursing	51	11.2
Associate's degree	97	21.2
Undergraduate	242	53
Graduate	67	14.7
Position in nursing		
Service nurse	357	78.1
Executive nurse	100	21.9
Professional experience (year), Mean±SD	10.12±7.47	
Professional experience groups		
1–5 years	170	37.2
Over 5 years	287	62.8
Number of years working in the same hospital (years) Mean±SD	6.01±5.98	
Number of years working in the same hospital group years		
1–5 years	273	59.7
Over 5 years	184	40.3

SD: Standard deviation.

Table 2. The scores on Attitudes Towards Change Scale (n=457)

ATCS and its sub-dimensions	Mean±SD	Min–Max
Institutional policy in change	2.91±0.77	1.00–5.00
Change outcomes	2.93±0.75	1.00–5.00
Resistance to change	3.15±0.71	1.00–5.00
Management style in change	2.56±0.79	1.00–5.00
ATCS	2.89±0.60	1.18–4.96

ATCS: Attitudes Towards Change Scale; SD: Standard deviation; Min: Minimum; Max: Maximum.

nally, 59.7% of the participants had been working less than 5 years at the hospital that they were currently working.

The Attitudes Towards Change of Nurses

Means, standard deviations and the nurses' minimum and maximum scores of nurses on the ATCS and its sub-dimen-

Table 3. The scores on sub-dimensions of the Five Factor Personality Traits Scale (n=457)

Sub-dimension of FFPTS	Mean±SD	Min–Max
Extraversion	3.50±0.66	1.38–5.00
Conscientiousness	3.90±0.56	1.89–5.00
Openness	3.40±0.64	1.60–5.00
Agreeableness	3.97±0.50	2.11–5.00
Emotional stability	3.19±0.60	1.00–5.00

FFPTS: Five Factor Personality Traits Scale; SD: Standard deviation; Min: Minimum; Max: Maximum.

sions are shown in Table 2. Nurses got the highest mean score on “the resistance to change” sub-dimension (3.15±0.71). Since higher scores indicate that participant does not resist to the change, this result suggests that participants had positive attitudes towards the change. Moreover, the nurses had the lowest score on the management style in change sub-dimension (2.56±0.79), which means they were not satisfied with the managerial methods used for promoting change. Lastly, the mean score obtained by the nurses on the ATCS was found to be 2.89. Although this value was very close to the neutral value, it was still below 3 and therefore considered negative.

The Five-Factor Personality Traits of Nurses

Means, standard deviations and the nurses' minimum and maximum scores on sub-dimensions of FFPTS are shown in Table 3. The nurses had the highest mean score on the agreeableness sub-dimension (3.97±0.50), which suggests that they were rather well-disposed to change. They got the lowest score on the emotional stability sub-dimension (3.19±0.60). However, their mean score was still over 3. Although they obtained a lower score on it compared to that of the other sub-

dimensions, they were nonetheless considered to be emotionally stable.

The Relationship Between Attitudes Towards Change of Nurses and Their Five Factor Personality Traits

The relationship between attitudes towards change of the nurses and their five-factor personality traits is shown in Table 4. According to this, statistically significant positive relationships were found between the “institutional policy in change” sub-dimension of the ATCS and the “agreeableness” and “emotional stability” sub-dimensions of the FFPTS, and between the “change outcomes” and “conscientiousness”, “agreeableness”, “emotional stability”. This study found statistically positive, significant relationships between the “resistance to change” sub-dimension and all sub-dimensions of the FFPTS (extraversion, conscientiousness, openness, agreeableness and emotional stability). This study found a positive, significant relationship between the sub-dimension of “management style in change” and “emotional stability”. Finally, positive and significant relationships between the ATCS and “conscientiousness”, “agreeableness” and “emotional stability” were found.

Discussion

Nurses’ Attitudes Towards Change

The first of the results obtained in this study was the nurses’ attitudes towards change. This study determined that nurses got above neutral scores on the resistance to change sub-dimension. Therefore, based on the data obtained from this study, it can be said that the nurses did not show resistance to change. However, it was remarkable that nurses got below neutral scores on the sub-dimensions of “institutional policy in change”, “change outcomes” and “management style in change”. In addition, nurses’ general attitudes towards change

Table 4. The relationship between Attitudes Towards Change Scales and Five Factor Personality Traits Scale (n=457)

Scales	Test	Five Factor Personality Traits Scale					
		Extraversion	Conscientiousness	Openness	Agreeableness	Emotional stability	
Attitudes Towards Change Scale							
	Institutional policy in change	r	0.029	0.085	-0.001	0.125	0.143
		p	0.536	0.68	0.977	0.008**	0.002**
Change outcomes	r	0.039	0.119	0.019	0.141	0.134	
	p	0.403	0.011*	0.680	0.002**	0.004**	
Resistance to change	r	0.130	0.187	0.157	0.108	0.160	
	p	0.005**	0.000***	0.001**	0.021*	0.001**	
Management style in change	r	-0.024	0.041	-0.014	0.047	0.133	
	p	0.614	0.384	0.768	0.320	0.004**	
ATCS	r	0.052	0.133	0.047	0.131	0.177	
	p	0.268	0.005**	0.314	0.005**	0.000***	

*p<0.05; **p<0.01; ***p<0.001. ATCS: Attitudes Towards Change Scales.

was found negative. Although the nurses did not show resistance to change, their general attitudes towards change were negative because policy makers, hospital managers and nurse managers were not able to manage the change successfully in this period.

With globalization, significant changes have taken place in the structure and operation of hospitals and in the working conditions of health workers in many countries of the world. The various discussions about these subjects were held in public. However, nurses were left out of these discussions and the decisions in this period were made without nurses' participation.^[17] This situation is not peculiar to Turkey. The literature shows that nurses in other countries of the world, like Mexico, Columbia, and Brazil, are not involved in policy-making and decision-making processes.^[18,19] It is likely that this approach was adopted by hospital managers and nurse managers to exclude nurses from this period of change. However, the literature indicates that senior nurse managers should lead the change process, actively participate in the change, share the concerns of other nurses and ensure that they participate in the change process.^[20] As a result, nurses are not able to benefit from the opportunities provided by the change and are also adversely affected by the results of the change.^[17-21] All these factors can negatively affect the nurses' general attitudes towards change.

The Five-Factor Personality Traits of Nurses

One of the other results of the study was personality traits. According to the data obtained, the nurses had positive personality traits. This study found that the nurses had the highest mean score on the sub-dimension of agreeableness, with scores above the neutral value. The researches have similarly reported that the most positive personality trait of nurses was agreeableness.^[22-24] This finding can be explained by the fact that, to provide efficient and quality health service, nurses work with health professionals with different areas of expertise (doctors, physiotherapists, dietitians, pharmacists, etc.) as a team. Nurses' agreeableness is thus understandable. The literature has also reported that agreeable people tend to cooperate more.^[8] In addition, the literature reports that there is a relationship between sex and agreeableness, that women, as compared to men, exhibit more tolerant and gentle behaviors, and that women have a higher level of agreeableness than that of men.^[25] The fact that a majority of the nurses participating in this study were female could explain the reason behind their scores being higher than those on the subsistence subscale. The nurses also had scores above the level of neutral on all sub-dimensions of the FFPTS, while their lowest mean score was on the sub-dimension of emotional stability. Similarly, in a research conducted with executive nurses, it was seen that they received the lowest score on the emotional stability sub-dimension.^[25] The nurses' heavy workloads, uncertainties about roles, high burnout levels, low job satisfaction and low motivation may have caused their "emotional stability" sub-dimension scores to be the lowest.^[26]

The Relationship Between Attitudes Towards Change of Nurses and Their Five-Factor Personality Traits

The literature reports that personality traits affect people's attitudes towards change, and this can be determined using the Five-Factor Model.^[27] Prior studies in nursing have not examined the relationship between attitudes towards change and five factor personality traits. For this reason, results of this study are especially significant.

According to the literature, agreeable and emotional stable people cope with workplace problems more competently and can stay calmer emotionally.^[8] Therefore, it is important that this study found significant relationship between "institutional policy in change" and "agreeableness" and "emotional stability". Similar to the studies in the literature, this study determined that agreeable and emotionally stable nurses displayed more positive attitudes towards corporate policies implemented in the process of change.

This study also found significant relationships between the "change outcomes" sub-dimension and "conscientiousness", "agreeableness" and "emotional stability". This can be explained by nurses' ability to stay calm and to adapt, the fact that they have consciences and felt responsible for the consequences of change as members of the organization. Thus, researcher reported that conscientious people feel more responsible for the consequences of organizational change.^[28]

One of the most important subjects in the research on change is resistance to change. Resistance to change is a normal response, however resistance levels must be determined and managed effectively. The literature emphasizes that employees mostly show resistance to change, and that personality traits are highly important among the factors that affect resistance.^[29] As in the literature, this study also found significant relationships between resistance to change and all dimensions of the FFPTS (extraversion, conscientiousness, openness, agreeableness and emotional stability) and observed that nurses with positive personality traits did not show resistance to change.

The participants generally regarded the management style as negative. Analysis of the relationships between management style in change and personality traits found a significant relationship between management style in change and emotional stability. This result suggests that happy, calm and emotionally balanced nurses found the management style of managers to be more positive.

In this study, it was determined that there was a statistically significant relationship between the ATCS and three dimensions of the FFPTS (conscientiousness, agreeableness and emotional stability). Similarly, in the literature, a study conducted with persons working in institutions in which a major administrative change such as restructuring was implemented found a significant relationship between attitude towards change and personality traits.^[27] The relationship between these variables proves that a personal approach to managing change is necessary, and that individual characteristics affect the process of change.

Limitations

This study's results are limited to nurses working in public hospitals. Given that there is only a limited number of studies in the literature on this subject, future studies should be carried out with health workers working in public and private health institutions.

Conclusion

As a response to this study's main research question, the researchers found that nurses with positive personality traits did not show resistance to change, and that emotionally balanced nurses had positive attitudes towards all dimensions of change.

This research has shown that nurses did not resist change. Yet, they felt uncomfortable with the approach of hospital management and nurse managers to change. Therefore, nurse managers should firstly organize programs to facilitate the process of change. The reasons and consequences of change should be explained to nurses, and should be informed about issues that may displease them. Nurses should be considered as a part of change and should be encouraged to participate in the process.

This study found that there was a relationship between nurses' attitudes towards change and their personality traits. Since responses to change can differ because of personality traits, individualized approaches should be used to be successful in the change process. Thus, nurse managers may benefit from the personality trait inventories in recruiting nurses, specifically for those units where changes are often experienced and where nurses are required to be more open and flexible. Nurses should be appointed to units based on the results obtained from personality inventories.

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