Examination of Nurses' Personal Traits and Intention to Collaborate within the Theory of Planned Behavior: The Case of Health Institutions

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ABSTRACT

The aim of current study was to evaluate the relationship between nurses' cooperation intentions and personality traits within the scope of the theory of planned behavior. The population of the study consisted of nurses working in a public hospital. (n=600) In current study, no sampling was made from the population and a survey was applied to all nurses (n=549). Five-factor personality traits scale, nurse-nurse cooperation scale and general cooperation scale were applied in data collection. SPSS (Statistical Package for the Social Sciences) statistical package program was used to analyze the data. Cronbach Alpha Analysis was performed for the reliability of the scales used in the study. Normal distribution test was applied before statistical analysis was performed with the data obtained from the survey. Factor analysis was performed to determine to what extent the survey questions could explain the theory of planned behavior and its sub-dimensions, and also to determine how all the questions in the survey were distributed among the theory of planned behavior sub-dimensions. At the end of the analysis, it was determined that all survey questions explained the theory of planned behavior at a rate of 61% and the Kaiser-Meyer-Olkin Sampling Adequacy Measurement result was high (KMO = 0.935). In our study; A significant difference was observed between the perceived behavioral control/self-efficacy/normative belief dimensions, which are sub-variables of the theory of planned behavior, and the perceived behavioral control/subjective norm dimensions depending on the nurses' workplaces. A significant difference was found between the intention to cooperate and neuroticism/openness/self-discipline personality types. Also, a significant difference was found between intention to cooperate and neuroticism/openness/self-discipline personality types. As a result of the research, suggestions were presented for the development of nurses' personality traits and cooperation intentions within the scope of the theory of planned behavior.

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1.INTRODUCTION

Collaboration is known as working together in communication with individuals or units that will contribute positively to the result of the task they perform, while achieving their goals while continuing their duties. Health institutions, especially hospitals, are institutions that serve in a matrix structure. Therefore, in order to ensure patient satisfaction, there is a need for close cooperation and cooperation among healthcare professionals in hospitals. Otherwise, an incompatible behavior of one of the healthcare professionals, which will adversely affect the process, will have negative consequences for all patients and will reduce patient satisfaction and satisfaction. Cooperation is an important coordination activity of teamwork (Doran, 2005).

"Personality"; it can be said that it is the lifestyle of people. However, within this lifestyle term, the individual's abilities, communication with his relatives, and mental characteristics are also included. All these elements can determine personality. In addition, personality can also be expressed as the differences in the mental and physical states of the person and the effects of these titles on the behavior and thoughts of the person (Erdoğan, 1991).

Planned Behavior Theory was developed by Icek Ajzen from "Logical Action Theory". In both theories, it is assumed that there is a specific reason for the behavior (Ajzen and Fishbein, 1980). According to the planned behavior theory, intention affects behavior. Intention, on the other hand, is under the influence of three elements called attitude, subjective values, and perceived behavioral control. When the person believes that the desired situation will come true (attitude), the behavior is approved by those around him (subjective values), and the individual does not see the behavior as difficult to perform (perceived behavioral control), he will perform the behavior (Armitage and Christian, 2003). Planned behavior theory is one of the successful social psychology models in terms of explaining and predicting the causes of behavior (Ajzen, 1991). It is a useful and preferred theory that aims to adapt to behavioral studies (Schultz, 2014).

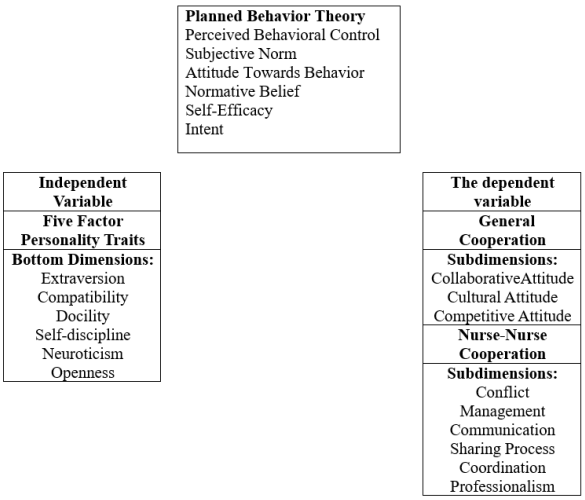
Empirical support for the theory is provided by a series of correlational studies of interventions demonstrating the ability to predict intentions and behaviors, with changes in intentions being reflected in subsequent behaviors (Ajzen, 2012). The earlier version of the Theory of Planned Behavior, the Theory of Causal Behavior; It explains behaviors that are completely under the control of the person (Erten, 2002). It is a theory that assumes that people are rational and will behave logically (Çetin and Şentürk, 2016), that individuals consider the benefits of a behavior when performing a behavior, and that individuals carry out all of their behaviors under their own control and will (Argan, 2016).

Healthcare services provided by nurses in hospitals have an important place in total health services. Personal characteristics and cooperation intentions of nurses; it is essential for the effectiveness and efficiency of the health services provided. The subject of this research is; the aim of this study is to examine the personality traits of nurses who provide health care services in health institutions, and their cooperation intentions with other health service providers in the hospital, within the framework of the theory of planned behavior.

Model of the Research

Within the framework of the theory of planned behavior; the arithmetic mean and standard deviation data were used in the analyzes to determine whether there is a significant relationship between the personality traits of the nurses according to the data obtained from their cooperation intentions. This research is in the relational browsing model. In the screening model, the subject or individual in the research is tried to be described as it is in the conditions in which it is located (Karasar, 2015). Based on this model, nurses' age, gender, education level, marital status, and professional seniority variables; personality traits were analyzed within the scope of nurse-nurse cooperation, general cooperation, and planned behavior theory.

The model of this research is as follows:



2. MATERIALS AND METHOD

Population and Samples of the Research

The population of the research is all nurses in a public hospital. In the study, a questionnaire was planned and applied for all nurses working in the hospital, whose sampling process was not performed (n=549).

Data Collection Tool of the Research

In the study, the 'five basic personality traits scale', which was used to examine nurses' personality traits and cooperation intentions within the scope of planned behavior theory, was developed by Rammstedt and John in 10 items. The scale is a five-point Likert type: strongly disagree-1, somewhat disagree-2, neither agree nor disagree-3, somewhat agree-4, strongly agree-5.

The 'nurse-nurse cooperation scale', which was used in the study to examine nurses' personality traits and cooperation intentions within the scope of planned behavior theory, was developed by Dougherty and Larson in 2019 and adapted to Turkish culture by Temuçin et al. in 2019 and consists of 25 items and five subdimensions. The subdimensions, item numbers, and Cronbach Alpha reliability coefficients of the scale rated with a 4-point Likert type are shown in Table 2.

It was determined that the Cronbach Alpha values of the general and subdimensions of the scale were above 0.6, and the scale and its subdimensions were reliable. The high mean scores obtained from the scale indicate that there is a high level of cooperation among nurses.
In the study, the 'general cooperation scale', which was used to examine the personality traits and cooperation intentions of nurses within the scope of the theory of planned behavior, was developed by Xie, Yu, Chen and Chen in 2006, and was adapted into Turkish by Yerlikaya and Doğruyol in 2020. It consists of 16 items and three dimensions. consists of. Among the items in the scale, 9 items describe their collaborative attitudes (eg, "group members must cooperate in order to be successful in the work being worked on."); 6 items (3, 6, 10, 11, 12 and 16) are based on competitive attitudes (e.g. “I prefer to be alone rather than running a business with group work”) with the opposite item and 1 item from a culturally meaningful proverb (“The proverb "What's wrong with one hand, two hands have a voice" makes a very correct point"). The scale is a five-point Likert type: strongly disagree-1, somewhat disagree-2, neither agree nor disagree-3, somewhat agree-4, strongly agree-5 (Yerlikaya & Doğruyol, 2020).

Research Hypotheses

According to the data obtained from the results of the questionnaire applied to the nurses; the following hypotheses were tested in terms of five-factor personality traits, nurse-nurse cooperation, and general cooperation, and planned behavior theory. As demographic data in the survey; gender, age, graduated school, marital status, number of children, department, time worked in the health sector, time worked in the hospital, and monthly income was defined.

Hypothesis: The relationship between nurses' five-factor personality traits and the variables of general cooperation and nurse-nurse cooperation can be explained through planned behavior theory subdimensions (Perceived Behavioral Control, Subjective Norms, attitude towards behavior, Self-Efficacy, Intention).

Analysis Method

We used SPSS 21.0 (Statistical Package for the Social Sciences) statistical package program for the analysis of the data. The distribution of demographic information of the participants was given via frequency and percentage. Cronbach's alpha coefficients were calculated for the validity and reliability of the applied questionnaire. In order to test the accuracy of the hypotheses established in the research and to decide on the statistical analysis to be made before, the analysis of whether there is a difference in terms of variables, the normal distribution of the data obtained from the survey was conducted.

The Kolmogrov-Smirnov test results were taken as the basis for the normal distribution test, since the number of individuals examined was more than 50. The Mann-Whitney U test was used in pairwise group comparisons for five-factor personality traits, nurse-nurse cooperation, and general cooperation variables that did not show normal distribution according to the results of the normal distribution test applied to the data obtained from the questionnaire. In comparison of more than two groups, the Kruskal Wallis Analysis of Variance test was used for the five-factor personality traits, nurse-nurse cooperation, and general cooperation variables that did not show normal distribution. Mann-Whitney U Test and Kruskal Wallis Analysis of variance test are non-parametric tests that can be applied to data that do not fulfill the parametric test assumptions on the data obtained by measurement. The statistical significance level was accepted as α=0.05 (Evliyaoğlu, 2016). Within the framework of the theory of planned behavior; the arithmetic mean and standard deviation data were used in the analyzes to determine whether there is a significant relationship between the personality traits of the nurses according to the data obtained from their cooperation intentions.

3. RESULTS

Table 1. Demographic Findings

Gender	Number	Percentage (%)
Female	373	67,9
Male	176	32,1
Age Groups		
18-24 years old	69	12,6
25-34 years old	249	45,4
35-44 years old	142	25,9
45-49 years old	73	13,2
50 and over	16	2,9
Marital Status		
Married	315	57,4
Single	234	42,6
Education Status		
High School	22	4,0
University	466	84,9
Master's and Above	61	11,1
Duty		
Internal Sections	236	43,0
Surgical Departments	189	34,4
Administrative Departments	9	1,6
Operating Room	115	20,9
Number Of Children		
None	269	49,0
1 Child	138	25,1
2 Children	106	19,3
3 and Over Children	36	6,6
Total	**549**	**100,0**
Working Time in the Health Sector		
0-5 Years	168	30,6
6-10 Years	124	22,6
11-15 Years	97	17,7
16-20 Years	49	8,9
21-25 Years	70	12,8
26 Years or More	41	7,5
Working Time in the Hospital		
0-5 Years	409	74,5
6-10 Years	56	10,2
11-15 Years	42	7,7
16-20 Years	22	4,0
21 Years or More	20	3,6
Monthly Income		
3500-4499 tl	129	23,5
4500-5499 tl	184	33,5
5500 tl or More	236	43,0
Total	**549**	**100,0**

Looking at the gender distribution, it is seen that the rate of women is higher than that of men.

When the age distributions are examined, it is seen that nurses between the ages of 25-34 are the most, and the nurses are at least 50 and over.

Considering the marital status distribution, it is seen that married nurses are more than single nurses.

When the educational status distribution is examined, it is seen that most university graduate nurses and the least high school graduate nurses.

Looking at the distribution of the nurses' workplaces, it is seen that the nurses mostly work in the internal departments and the least nurses work in the administrative departments.

Considering the distribution of the number of children, it is seen that the nurses who do not have the most children, and the nurses who have 3 or more children the least.

Considering the distribution of working hours in the health sector, it was seen that most nurses work between 0-5 years, while the least nurses work for 26 years or more.

Looking at the distribution of working hours in the hospital, it is seen that nurses work mostly between 0-5 years and at least 26 years or more.

Looking at the monthly income distributions; nurses' maximum 5500 TL. and above, and at least between 1600-2499.

Table 2: General Reliability Analysis of the Survey Study (Five Factor Personality Traits, Nurse-Nurse Collaboration and General Collaboration Scales)

Scale	Number of Questions in the Scale	Cr.a
Five Factor Personality Traits Scale, Nurse-Nurse Collaboration Scale, General Collaboration Scale	51	0,903

Internal consistency and validity reliability analyzes of all general (Five Factor Personality Traits Scale, Nurse-Nurse Collaboration Scale, General Collaboration Scale) questions were performed and the result was found to be highly reliable (Table-2).

Table-3: Factor Analysis Findings

Measuring Kaiser-Meyer-Olkin Sampling Adequacy							0,935		
Bartlett's Test of Sphericity				**Approximately. Chi-Square**			13988,359		
				Sd.			820		
				Sig.			0,000		
	Initial Eigenvalues			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	13,515	32,963	32,963	13,515	32,963	32,963	9,624	23,472	23,472

2	5,217	12,725	45,688	5,217	12,725	45,688	6,822	16,638	40,110
3	2,169	5,291	50,979	2,169	5,291	50,979	3,368	8,215	48,325
4	1,556	3,796	54,775	1,556	3,796	54,775	1,836	4,479	52,804
5	1,321	3,223	57,997	1,321	3,223	57,997	1,752	4,274	57,077
6	1,243	3,032	61,030	1,243	3,032	61,030	1,620	3,952	**61,030**
7	1,094	2,668	63,698						
8	1,014	2,474	66,172						
9	0,880	2,147	68,319						
10	0,862	2,103	70,422						
11	0,784	1,912	72,334						
12	0,705	1,719	74,053						
13	0,628	1,532	75,584						
14	0,609	1,484	77,069						
15	0,604	1,472	78,541						
16	0,596	1,455	79,996						
17	0,563	1,374	81,369						
18	0,532	1,298	82,667						
19	0,481	1,172	83,840						
20	0,462	1,128	84,968						
21	0,445	1,085	86,052						
22	0,428	1,043	87,096						
23	0,413	1,007	88,103						
24	0,390	0,951	89,054						
25	0,383	0,934	89,987						
26	0,366	0,894	90,881						
27	0,345	0,841	91,722						
28	0,328	0,800	92,522						
29	0,320	0,780	93,302						
30	0,299	0,729	94,031						
31	0,279	0,681	94,712						
32	0,268	0,654	95,367						
33	0,261	0,637	96,004						
34	0,250	0,611	96,614						
35	0,234	0,570	97,184						
36	0,227	0,554	97,739						
37	0,223	0,544	98,282						
38	0,211	0,514	98,796						
39	0,195	0,475	99,271						
40	0,159	0,388	99,658						
41	0,140	0,342	100,000						

Factor analysis was applied to determine how well the questionnaire questions applied to the nurses could explain the theory of planned behavior and its subdimensions, and to determine the planned behavior subdimensions of all questionnaire questions. As a result of the analysis, it was determined that all survey questions explained the theory of planned behavior that we wanted to measure by 61% and the result of the Kaiser-Meyer-Olkin Sampling Adequacy Measurement was high (KMO = 0.935). The subdimensions of all questions asked to explain the theory of planned behavior are given in Table-3.

Table 4: Rotated Component Matrix in 6 Dimensions Analysis

Survey Questions	**Component**					
	1	**2**	**3**	**4**	**5**	**6**
1	0,371		**0,652**			
2	0,378		**0,728**			
3			**0,584**			
4	0,432		**0,607**			
5	0,467		**0,585**			
6	0,494		**0,554**			
7				**0,702**		
8				**0,804**		
9	**0,566**		0,355			
10	**0,638**					
11	**0,665**					
12	**0,684**					
13	**0,638**					
14	**0,711**					
15	**0,703**					

16	**0,659**			0,321		
17	**0,690**					
18	**0,683**		0,351			
19	**0,754**					
20	**0,789**					
21	**0,786**					
22	**0,774**					
23	**0,747**					
24	**0,698**		0,395			
25	**0,692**					
26		**0,801**				
27		**0,817**				
28		**-0,396**			-0,432	
29		**0,722**				
30		**0,716**				
31		**-0,583**				
32		**0,796**				
33		**0,835**				
34		**0,807**				
35						**0,780**
36						**-0,805**
37					**-0,564**	0,380
38		0,461			**0,562**	
39		**0,687**				
40		**0,773**				
41		-0,440			**-0,594**	

After the analysis, the scale was collected in 6 dimensions. In this study, the subdimensions were named as perceived behavioral control, subjective norm, attitude towards behavior, normative belief, self-efficacy and intention in accordance with the theory of planned behavior. The first dimension is perceived behavioral control; It consists of questions 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25. The second dimension is the subjective norm; It contains questions 26, 27, 28, 29, 30, 31, 32, 33, 34, 30, and 40. The third dimension is attitude towards behavior and questions 1, 2, 3, 4, 5, and 6. The fourth dimension is normative belief and covers questions 7 and 8. The fifth dimension is self-efficacy and consists of questions 37, 38, and 41. The last dimension, the sixth dimension, is intention and includes questions 35 and 36.

Table-5: Five Factor Personality Traits, Nurse-Nurse Collaboration, General Collaboration and Planned Behavior Theory Correlation Analysis Table Variables

			Perceived Behavioral Control	Subjective Norm	Attitude Towards Behavior
Spearman's rho	Five Factor Personality Traits	r	0,058	0,095*	0,544**
		p	0,173	**0,027**	**0,000**
		n	549	549	549
	Nurse-Nurse Collaboration	r	0,980**	0,429**	0,213**
		p	**0,000**	**0,000**	**0,000**
	General Cooperation	r	0,379**	0,633**	0,295**
		p	**0,000**	**0,000**	**0,000**
	Perceived Behavioral Control	r		0,451**	0,230**
		p		**0,000**	**0,000**
	Subjective Norm	r	0,451**		0,266**
		p	**0,000**		**0,000**
	Attitude Towards Behavior	r	0,230**	0,266**	
		p	**0,000**	**0,000**	
	Normative Belief	r	0,022	-0,203**	-0,101*
		p	0,615	**0,000**	**0,018**
	Self-Efficacy	r	-0,176**	-0,127**	-0,277**
		p	**0,000**	**0,003**	**0,000**
	Intent	r	0,668**	0,387**	0,174**
		p	**0,000**	**0,000**	**0,000**

When the table is examined; there is a significant (p=0.000) and positive (r=0.095) relationship between the perceived behavioral control subdimensions of the theory of planned behavior and the subjective norm subdimension variable.

There is a significant (p=0.000) and positive (r=0.230) relationship between the subdimensions of the theory of planned behavior, perceived behavioral control, and the subdimension of attitude towards behavior.

There is a significant (p=0.000) and positive relationship (r=0.266) between the subjective norm, which is the subdimensions of the theory of planned behavior, and the subdimension of attitude towards behavior.

There is a significant (p=0.000) but negative (r=-0.203) relationship between the normative belief subdimensions of the theory of planned behavior and the subjective norm subdimension variable.

There is a significant (p=0.000) and positive relationship (r=0.668) between intention, which is the subdimensions of the theory of planned behavior, and the variable of perceived behavioral control.

There is a significant (p=0.000) and positive (r=0.387) relationship between intention, which is the subdimensions of the theory of planned behavior, and the subjective norm subdimension variable

There is a significant (p=0.000) and positive (r=0.174) relationship between the subdimensions of Planned Behavior Theory Intention and Attitude towards Behavior subdimension variables.

Table-6: Five Factor Personality Traits, Nurse-Nurse Collaboration, General Collaboration and Planned Behavior Theory Correlation Analysis Table Variables

			Normative Belief	Self Effectiveness	Intent
Spearman's rho	Five Factor Personality Traits	r	-0,010	0,601**	0,020
		p	0,822	**0,000**	0,641
		n	549	549	549
	Nurse-Nurse Collaboration	r	0,097*	-0,169**	0,764**
		p	**0,022**	**0,000**	**0,000**
		n	549	549	549
	General Cooperation	r	-0,257**	-0,051	0,352**
		p	**0,000**	0,229	**0,000**
		n	549	549	549
	Perceived Behavioral Control	r	0,022	-0,176**	0,668**
		p	0,615	**0,000**	**0,000**
		n	549	549	549
	Subjective Norm	r	-0,203**	-0,127**	0,387**
		p	**0,000**	**0,003**	**0,000**
		n	549	549	549
	Attitude Towards Behavior	r	-0,101*	-0,277**	0,174**
		p	**0,018**	**0,000**	**0,000**
		n	549	549	549
	Normative Belief	r	1,000	0,071	0,072
		p		0,096	0,094
		n	549	549	549
	Self-Efficacy	r	0,071	1,000	-0,149**
		p	0,096		**0,000**
		n	549	549	549
	Intent	r	0,072	-0,149**	1,000
		p	0,094	**0,000**	
		n	549	549	549

When the table is examined; There is a significant (p=0.000) but negative (r=-0.149) relationship between the subdimensions of the theory of planned behavior, Self-Efficacy and the intention subdimension variable. As the self-efficacy subdimension score increases, the intention subdimension score also increases, although it does not have a very strong linear relationship. Thus, we can say that those who give importance to the self-efficacy subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the intention subdimension.

4.DISCUSSION

There was a significant (p=0.000) and positive (r=0.980) relationship between the perceived behavioral control variable, which was a subdimension of the theory of planned behavior, and the nurse-nurse cooperation variable. As the perceived behavioral control subdimension variable score increases, the nurse-nurse cooperation score also increased with a very strong linear relationship. Thus, we can state that the nurses who take part in the provision of health services and who were surveyed give importance to the level of nurse-nurse cooperation among those with high perceived behavioral control subdimensions.

There was a significant (p=0.000) and positive relationship (r=0.379) between the perceived behavioral control variable, which was a subdimension of the theory of planned behavior, and the general cooperation variable. As the Perceived Behavioral Control subdimension variable score increases, the overall cooperation score also increases, although it did not have a very strong linear relationship. Thus, we can explain that those who give importance to the perceived behavioral control subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the general level of cooperation.

There was a significant (p=0.027) and positive (r=0.095) relationship between the subjective norm variable, which was the subdimension of the theory of planned behavior, and the nurse-nurse cooperation variable. As the subjective norm subdimension variable score increased, the nurse-nurse cooperation score also increases, although it does not have a very strong linear relationship. Thus, we can say that those who give importance to the subjective norm subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the level of nurse-nurse cooperation.

There was a significant (p=0.000) and positive (r=0.633) relationship between the subjective norm variable, which was the subdimension of the theory of planned behavior, and the general cooperation variable. As the subjective norm subdimension variable score increases, the overall cooperation score also increased with a very strong linear relationship. Thus, we can interpret that those who give importance to the subjective norm subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the general level of cooperation.

There was a significant (p=0.000) and positive (r=0.429) relationship between the subjective norm variable, which was the subdimension of the theory of planned behavior, and the nurse-nurse cooperation variable. As the subjective norm subdimension variable score increases, the nurse-nurse cooperation score also increased, even if it does not have a very strong linear relationship. Thus, we can evaluate that those who give importance to the subjective norm subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the level of nurse-nurse cooperation.

There was a significant (p=0.000) and positive (r=0.544) relationship between the variable of attitude towards behavior, which was a subdimension of the theory of planned behavior, and the variable of five-factor personality traits. As the attitude towards behavior subdimension variable score increased, the five-factor personality traits score also increases with a very strong linear relationship. Thus, we can explain that nurses with a high general level of five-factor personality traits included in the provision of health services and surveyed attach importance to the subdimension of attitude towards behavior.

There was a significant (p=0.022) and positive (r=0.097) relationship between the normative belief variable, which was a subdimension of the theory of planned behavior, and the nurse-nurse cooperation variable. As the normative belief subdimension variable score increased, the nurse-nurse cooperation score also increases, even though it does not have a very strong linear relationship. Thus, we can explain that the nurses who take part in the provision of health services and who are surveyed give importance to the normative belief subdimension and that they also attach importance to the level of nurse-nurse cooperation.

There was a significant (p=0.000) and positive relationship (r=0.601) between the self-efficacy variable, which was a subdimension of the theory of planned behavior, and the five-factor personality trait variable. As the self-efficacy subdimension variable score increased, the five-factor personality traits score also increases with a very strong linear relationship. Thus, we can say that nurses who take part in the provision of health services and who are surveyed with a high level of five-factor personality traits also attach importance to the subdimension of self-efficacy.

There was a significant (p=0.000) and positive (r=0.764) relationship between the intention variable, which was the subdimension of the theory of planned behavior, and the nurse-nurse cooperation variable. As the intention subdimension variable score increased, the nurse-nurse cooperation score also increases with a very strong linear relationship. Thus, we can explain that those who give importance to the intention subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the level of nurse-nurse cooperation.

There was a significant (p=0.000) and positive (r=0.352) relationship between the intention variable, which was a subdimension of the theory of planned behavior, and the general cooperation variable. As the intention subdimension variable score increased, the overall cooperation score also increases, even if it does not have a very strong linear relationship. Thus, we can define that the nurses who take part in the provision of health services and who are surveyed give importance to the general cooperation level of those who attach importance to the intention subdimension.

There was a significant (p=0.000) and positive (r=0.095) relationship between the subdimensions of the theory of planned behavior, perceived behavioral control, and the Subjective Norm variable. As the perceived behavioral control subdimension score

increased, the Perceived Behavioral Control subdimension score also increased, although it did not have a very strong linear relationship. Thus, we can interpret that those who give importance to the perceived behavioral control subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the subjective norm subdimension. Remina (2017), Chavarria and Phakdee-auksorn (2017), Kurt (2018), and Erkek (2016) found a positive and significant relationship between “perceived behavioral control” and “subjective norms” in their studies on planned behavior theory.

There was a significant (p=0.000) and positive (r=0.230) relationship between the subdimensions of the theory of planned behavior, perceived behavioral control, and the attitude towards behavior subdimension variables. As the Perceived Behavioral Control subdimension score increases, the attitude towards the behavior sub-dimension score also increased, although it did not have a very strong linear relationship. Thus, we can say that those who give importance to the perceived behavioral control subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the attitude towards behavior subdimension. Remina (2017), Erkek (2016), Demirer (2019), and Demirbağ (2019) stated in their studies on the theory of planned behavior that there was a positive and significant relationship between "attitude" and "perceived behavioral control".

There was a significant (p=0.000) and positive relationship (r=0.266) between the subjective norm, which is the subdimensions of the theory of planned behavior, and the subdimension of attitude towards behavior. As the subjective norm subdimension score increased, the attitude towards behavior subdimension score also increased, although it did not have a very strong linear relationship. Thus, we can explain that those who give importance to the subjective norm subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the attitude towards behavior subdimension. Remina (2017), Erkek (2016), and Demirer (2019) found a positive and significant relationship between “attitude” and “subjective norms” in their studies on the theory of planned behavior.

There was a significant (p=0.000) but negative (r=-0.203) relationship between the normative belief subdimensions of the theory of planned behavior and the subjective norm subdimension variable. As the normative belief subdimension score increased, the subjective norm sub-dimension score also decreased, although it did not have a strong inverse relationship. Thus, we can say that those who give importance to the Normative Belief subdimension of the nurses who take part in the provision of health services and who are surveyed do not attach importance to the subjective norm subdimension. Demirer (2019) found a positive and significant relationship between “subjective norm” and “normative belief” in his study. Therefore, it can be said that those who attach importance to the Normative Belief sub-dimension are positive with the subjective norm, as they have personality traits suitable for the organizational culture of the institution they work for.

There was a significant (p=0.000) and positive relationship (r=0.668) between intention, which was the subdimensions of the theory of planned behavior, and the variable of perceived behavioral control. As the intention subdimension score increased, the perceived behavioral control subdimension score also increased with a very strong linear relationship. Thus, we can say that those who give importance to the Intention subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the perceived behavioral control subdimension. Karahan (2018) did not find a positive significant relationship between "perceived behavioral control" and "intention" in his study on the theory of planned behavior. Remina (2017), Işın (2018), Erkek (2016), Bayındır (2018), Göktürk (2019), Demirer (2019), Demirbağ (2019), Batıbeki (2020) on the other hand, in their studies on the theory of planned behavior "perceived behavioral stated that there was a positive and significant relationship between “control” and “intention”. Özer et al., (2015) found that there was a negative relationship between intention and perceived behavioral control. In Özer's research, reasons for this situation can be stated, such as employees feeling inadequate, pressure or learned helplessness.

There was a significant (p=0.000) and positive (r=0.387) relationship between intention, which was the subdimensions of the theory of planned behavior, and the subjective norm subdimension variable. As the intention subdimension score increases, the subjective norm subdimension score also increases, although it does not have a very strong linear relationship. Thus, we can say that those who give importance to the intention subdimension of the nurses who take part in the provision of health services and who are surveyed also attach importance to the subjective norm subdimension. In the study of Vural (2021) and Erkek (2016), it was determined that there was no statistically significant relationship between subjective norm and intention, which was the dependent variable. Remina (2017), Karahan (2018), Akça (2019), Göktürk (2019), Özer et al., (2015), Demirer (2019), Batıbeki (2020), on the other hand, use the "subjective norm" in their studies on the theory of planned behavior. They stated that there was a positive and significant relationship between “intention” and “intention”.

There was a significant (p=0.000) and positive (r=0.174) relationship between the subdimensions of the theory of planned behavior intention, and the

subdimension of attitude towards behavior. As the intention subdimension score increased, the attitude towards behavior subdimension score also increases, although it does not have a very strong linear relationship. Thus, we can say that the nurses who take part in the provision of health services and who are surveyed give importance to the intention subdimension of those who have a high level of attitude towards behavior. Vural (2021) and Remina (2017) found a positive and significant relationship between "attitude" and "entrepreneurial intention" in their studies on the theory of planned behavior. Kurt (2018), Karahan (2018), Bayındır (2018), Göktürk (2019), Demirer (2019), Batıbeki (2020), and Karaman (2020) found a statistically significant difference between intention and attitude in their studies on the theory of planned behavior. They found a positive relationship. Ozer et al. (2015), on the other hand, found that there was a statistically negative relationship between attitude and intention. Contrary to our research, we can state that the behavior of the participants in Özer's research within the institution varies depending on the environment and the personal characteristics that form their own intentions.

5. CONCLUSION

In this study, it was aimed to explain the cooperative behavior by taking into account the personality traits of the nurse staff by using the theory of planned behavior. According to the results of the study, it was revealed that the planned behavior theory was an adequate model for explaining the cooperation behaviors by considering the personality traits of the nurse personnel. In this respect, it could be said that the study had achieved its purpose.

According to the results of the analysis of our study, the demographic findings indicated that the density of nurses was women with 67.9%. When the nurses were analyzed according to age groups, it was determined that the density was 45.4% in the 25-34 age group. When the data on the marital status of the nurses were analyzed, it was found that the number of married nurses was 57.4%, and when the education level of the nurses was examined, it was determined that the density was composed of university graduates with a rate of 84.9%. When the distribution of duties of the nurses is examined, it is seen that the density of 43.0% works in the internal departments, when the number of children was examined, the density of 49.0% is the absence of children. When examined in terms of working time in the hospital, it has been determined that the density is 74.5% of the nurses who have worked between 0-5 years, and in the monthly income distribution, the density of the nurses who received the highest monthly income (5500 TL and above) with 43.0%.

As the perceived behavioral control sub-dimension variable score increases, the nurse-nurse cooperation score also increases with a very strong linear relationship. Thus, we can state that nurses who are involved in the provision of health services and who were surveyed, those who have high perceived behavioral control sub-dimension, also attach importance to the level of nurse-nurse cooperation.

There is a significant and positive relationship between the perceived behavioral control variable, which is the sub-dimension of the theory of planned behavior, and the general cooperation variable. As the perceived behavioral control sub-dimension variable score increases, the general cooperation score also increases, even if it does not have a very strong linear relationship. Thus, we can interpret that the nurses who are involved in the provision of health services and who were surveyed, those with high levels of Perceived behavioral control sub-dimension, attach importance to general cooperation.

There is a significant and positive relationship between the subjective norm variable, which is the sub-dimension of the theory of planned behavior, and the nurse-nurse collaboration variable. As the subjective norm subdimension variable score increases, the nurse-nurse cooperation score also increases, although it does not have a strong linear relationship. Thus, we can state that those who give importance to the subjective norm sub-dimension of nurses who are involved in the provision of health services and surveyed also attach importance to the level of nurse-nurse cooperation.

Suggestions

• It was seen that nurse personnel were inclined to general cooperation during the delivery of health care services. It was thought that the reason for this was the necessity of being prone to cooperation due to the education they receive and their position in the provision of health services. They should cooperate with other health personnel in the provision of services.

• A significant relationship was found between the nurse staff who have agreeableness, neuroticism, and openness personality traits and the department they work in. These personality traits were higher in nurses working in internal departments. Among these personality traits, it was recommended that nurses with neuroticism should be followed closely and their positions changed when necessary.

• It was seen that the perceived behavioral control level of the nurse staff significantly affected the conflict management skills. The reason for this was the positive perceptions of the nurse staff arising from the conflict management behavior of their own will. Therefore, it is

recommended to provide convenience, opportunities, and resources to manage conflict situations that nurse staff may encounter during service delivery.

• As the level of neuroticism and openness of the nurse staff increases, the subjective norm increases significantly. This situation arises from the values and social norms that people perceive in the environment in which they work. Therefore, it was recommended that the environment in which people work and the corporate culture be kept away from social pressure, sanctions, motivational factors, and harsh rules as much as possible.

• The self-discipline personality trait level of the nurse staff had a significant and positive effect on the person's behavioral intentions. In this case, it was recommended to encourage self-discipline-enhancing training in order to increase the intention levels of the nurse staff.

• It was stated that the cooperative attitudes of the nurses with a high level of intention were also high. In order to keep the level of cooperation high, it is recommended to put encouraging rewards that intensify the cooperation intention of the nurses.

• Since there was a negative relationship between the intention level of the nurse staff and their competitive attitudes, it was recommended to keep the working environment away from competition as much as possible and to explain to the nurses through training that cooperation will gain more than competition.

• To increase the level of cooperation of nurses, both in-service training should be ensured and encouraging measures should be taken to increase their general education level.

• It was seen that nurses working in stressful and patient safety departments have higher cooperation score averages. It would be appropriate for health institution managers to develop policies that reduce the stress levels of the personnel working in such places and motivate them.

• It was thought that the level of cooperation between nurses will decrease as the workload of nurses is high, the inadequacy of their numbers, and long working hours, fatigue, stress, and conflict as a result of the burden of non-duty responsibilities. For this reason, it was recommended to investigate the relationship between nurses' workload and cooperation.

• It was thought that it would be appropriate to make wage increase arrangements in order to increase the general cooperation of nurses and to make additional wage arrangements to encourage especially nurses working in busy and stressful departments.

• In this study, general cooperation, nurse-nurse cooperation, the subdimensions of these collaborations and their effects on each other, as well as the effects on the planned behavior theory and the subdimensions of the planned behavior theory, which were the basis of the study, were examined by correlation analysis. In future scientific studies within this scope; regression analysis should be done for the dimensions with a high level of correlation between them and the levels of influence of the dimensions on each other should be examined mathematically.

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REFERENCES

Ajzen I. (1991). The Theory Of Planned Behaviour, Organizational Behaviour and Human Decision Processes. 50, Massaachussets.

Ajzen, I., Fishbein, M. (1980). Understanding attitudes andpredictingsocialbehavior. Englevvood Cliffs, NJ: Prentice-Hall.

Ajzen, I. (2012). The Theory of Planned Behavior. İn P. A. M. Lange, A. W. Kruglanski & E. T. Higgins (Eds.), Handbook of theories of social psychology (Vol. 1, pp. 438-459). London, UK: Sage.

Akça, C. (2019). Planlı Davranış Teorisi ve Norm Aktivasyon Modeli Çerçevesinde Tüketici Geri Dönüşüm Davranışlarının İncelenmesi, Mersin İli Örneği Yüksek Lisans Tezi, Mersin Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Mersin (Danışman: Dr. Öğr. Üyesi Ümit Doğrul).

Armitage, O J., Christian, J. (2003). From attitudes to behaviour: Basic and applied research on the theory of planned behaviour. Current Psychology: Developmental, Learning, Personality, Social, 22, 187-195.

Argan, T.A. (2016). Kan Bağış Davranışını Etkileyen Faktörlerin Planlı Davranış Teorisi Çerçevesinde İncelenmesi. ACU Sağlık Bilimleri Dergisi, (2), 96-104.

Batıbeki, S. E. (2020), Gastronomi Festivallerine Katılma Niyetinin Planlı Davranış Teorisi Çerçevesinde Değerlendirilmesi, Yüksek Lisans Tezi, Çanakkale Onsekiz Mart Üniversitesi / Lisansüstü Eğitim Enstitüsü / Turizm İşletmeciliği Ana Bilim Dalı, Çanakkale (Danışman: Dr. Oğuz Taşpınar).

Bayındır, B. (2018), Planlı Davranış Teorisi Çerçevesinde Kahve Dükkanlarında Kahve İçme Davranışının İncelenmesi, Yüksek Lisans Tezi, Akdeniz Üniversitesi / Sosyal Bilimler Enstitüsü / Turizm İşletmeciliği Ana Bilim Dalı, Antalya (Danışman: Doç. Dr. Osman Çalışkan).

Çetin, A., Şentürk, M. (2016). Bilgi Paylaşma Davranışının Planlı Davranış Teorisi ve Sosyal Değişim Teorisi Bağlamında İncelenmesi: Dermatologlar Üzerine Ampirik Bir Araştırma. Ege Akademik Bakış, 6(2), 241-256.

Demirer, Y. (2019), Geri Dönüşüm Lojistiğinde Nihayi Tüketicilerin Planlı Davranış Teorisine Göre İncelenmesi: TRC1 Bölgesinde Bir Araştırma, Yüksek Lisans Tezi, Hasan

Kalyoncu Üniversitesi / Sosyal Bilimler Enstitüsü / Uluslararası Ticaret Ve Lojistik Ana Bilim Dalı, Gaziantep (Danışman: Dr. Öğr. Üyesi: İbrahim Akben).

Doran D. Teamwork—Nursing and the multidisciplinary team. In Quality work environments for nurse and patient safety, edited by L. McGillis Hall. Mississauga, ON: Jones and Bartlett; 2005: 39-62.

Erdoğan, İ., (1991), İşletmelerde Davranış, 4. Baskı, İstanbul: Beta Basım Yayım Dağıtım.

Erkek, E. (2016), Gayrimenkul Sektöründe Tüketicinin Satın Alma Davranışı: Planlanmış Davranış Teorisine Göre Bir Uygulama, Yüksek Lisans Tezi, Okan Üniversitesi / Sosyal Bilimler Enstitüsü / İşletme Ana Bilim Dalı / İşletme Bilim Dalı, İstanbul (Danışman: Doç. Dr. Ayşe Cingöz).

Erten, S. (2002). Planlanmış Davranış Teorisi İle Uygulamalı Ders İşleme Öğretim Metodu. Hacettepe Üniversitesi Edebiyat Fakültesi, 19 (2), 217-233.

Göktürk, E. T. (2019), Tüketicilerin Helal Ürün Satın Alma Tutumlarının İncelenmesi: Planlı Davranış Teorisi Bağlamında Pilot Bir Araştırma, Yüksek Lisans Tezi, Marmara Üniversitesi / Sosyal Bilimler Enstitüsü / İşletme Ana Bilim Dalı / Pazarlama Bilim Dalı, İstanbul (Danışman: Prof. Dr. Tayyip Sabri Erdil).

Karahan, M. O. (2018), Dijital Korsanlıkta Planlı Davranış Teorisi Ve Etik Kavramının Etkisi, Doktora Tezi, Dumlupınar Üniversitesi / Sosyal Bilimler Enstitüsü / İşletme Ana Bilim Dalı, Kütahya (Danışman: Doç. Dr. Aydın Kayabaşı).

Karaman, N. (2020), Yerel Gastronomik Ürün Tercihinde Etkili Olan Faktörlerin Planlı Davranış Teorisine Göre İncelenmesi, Doktora Tezi, Balıkesir Üniversitesi / Sosyal Bilimler Enstitüsü / Turizm İşletmeciliği Ana Bilim Dalı, Balıkesir (Danışman: Doç. Dr. Göksel Kemal Girgin).

Karasar, N. (2015). Bilimsel araştırma yöntemi. Ankara: Nobel.

Kurt, O. C. (2018), Bağımsız seyahat eden turistlerin sokak yiyeceklerini tüketme niyetinin planlı davranış teorisi çerçevesinde incelenmesi, Yüksek Lisans Tezi, Akdeniz Üniversitesi / Sosyal Bilimler Enstitüsü / Turizm İşletmeciliği Ana Bilim Dalı, Antalya (Danışman: Dr. Yeşim Helhel).

Özer, L., Kement, Ü., Gültekin, B., (2015). Genişletilmiş planlanmış davranış teorisi kapsamında yeşil yıldızlı otelleri tekrar ziyaret etme niyeti. Hacettepe Üniversitesi İktisadi ve İdari Bilim Fakültesi Dergisi, 33(4); 59 - 85

Remina, K. (2017). Planlı davranış teorisi kapsamında girişimcilik niyetinin ölçülmesi: Üniversite öğrencilerine yönelik bir araştırma. Yüksek Lisans Tezi Karadeniz Teknik Üniversitesi / Sosyal Bilimler Enstitüsü / İşletme Ana Bilim Dalı / Yönetim ve Organizasyon Bilim Dalı, Trabzon.

Schultz, J.R. (2014). Applying The Theory of Planned Behavior to Participation in Sustainable Tourism Certification Programs. Unpublished Doctorof Philosophy, The University of Utah, United States

Vural, T. B. (2021), Türkiye'de Girişimci Olma Niyetini Etkileyen Unsurların Planlanlı Davranış Teorisi Bağlamında İncelenmesi, Yüksek Lisans Tezi, Bahçeşehir Üniversitesi / Sosyal Bilimler Enstitüsü / İşletme Ana Bilim Dalı, İstanbul (Danışman: Dr. Öğr.. Güngör Hacıoğlu).

Yay, A. S. E. (2015). Application of life cycle assessment (LCA) for municipal solid waste management: a case study of Sakarya. Journal of Cleaner Production, 94, 284-293.

Yerlikaya, Y. G., & Doğruyol, B. (2020). İşbirliği Ölçeği: Kültürel Adaptasyon. IBAD Sosyal Bilimler Dergisi, (8), 350-363.