

Original Article

Comparing the Attitudes and Behaviors of Turkish Nursing Students towards Blood Donation and Their Emphatic Tendencies

Isil Isik Andsoy RN, PhD

Assistant Professor, Karabuk University, School of Health, Nursing Department, Karabuk, Turkey

Asiye Gul RN, PhD

Assistant Professor, Istanbul University, Faculty of Health Science, Department of Midwifery, Istanbul, Turkey

Sevgi Dinc RN, MsN

Research Asistant, Karabuk University, School of Health, Nursing Department, Karabuk, Turkey

Correspondence: Isil Isik Andsoy Assistant Professor, Karabuk University, School of Health, Nursing Department, Karabuk, Turkey Email: isilandsoy@gmail.com

Abstract

Introduction: Blood donation rates are low in Turkey. Determination of the attitudes and behaviors of the nursing students who will work in health sector and lead the society with their knowledge and behaviors towards the blood donation is crucial. The aim of this study was to evaluate the relationship between the attitudes and behaviors of nursing students towards blood donation and their emphatic tendencies.

Methods: The study was conducted 135 students in Karabuk University Nursing Department between the October and November 2013. Data in this study was obtained by individual data forms and the scale of emphatic tendency. Data were analyzed with chi-square test, Spearman correlation analysis and independent samples t-test.

Results: The rate of blood donation among the participants was low. Although the knowledge level of the nursing students was high, their knowledge regarding the blood donation was insufficient. The relationship between gender and blood donation is significant ($p=0.02$). There was no significant relation between the Empathic Tendency Scale score of the participants and their experience of blood donation ($p=0.83$).

Conclusion: Social projects to encourage the blood donations should be developed and lectures that would contribute to the emphatic tendencies of the nursing students should be encouraged.

Keywords: Blood donation, Turkish nursing students, knowledge, emphatic tendency

Introduction

Since the ancient ages, the blood has been considered as one of the fundamentals of human life. The demand for blood and blood products has increased with the increase in life expectancy and the employment of new operational and medical methods. In addition to the blood donation are insufficient to cover the high transfusion needs arising from large number of disease such as cancer, chronic anemia and sickle cell anemia and

increasing demand for blood due to trauma, surgical procedures and other serious clinical situations. With proper indication, blood transfusion is lifesaving (Ferguson, 1996; Marantidou et al.,2007; Masser et al.,2008; Boulton, 2013). The requirement of blood and blood products are still high in today's world.

The only resource for blood supply is the donors. Voluntary, gratuitous and regular donation is the principle for the supply of

blood and blood products. However, measures to promote blood donation that will not imply financial interests are required (Gillespie and Hillyer, 2002; Turkey Ministry Health, 2008). And also according to World Health Organization's (WHO), the safest blood donors are voluntary, non-remunerated blood donors from low risk population.

The WHO's goal is for all countries to obtain all blood supplies from voluntary unpaid donors by 2020 (WHO, 2014). When compared with the developed countries, Turkey is far behind in terms of blood donation. The ratio of blood donation in Turkey is about 1.5 to 2% and the studies on students and various profession groups reveal that blood donation is inadequate (Kart Yasar et al., 2011; Katranci, 2012; Birgili and Khorshid, 2011).

Background

Turkey is in a back row on blood donation rates when compared with other developed countries. Blood needs is an important issue that concerns the whole community. From the past to the present, the most important motivation factors related to blood donation are self-sacrifice, awareness for the demand of blood donation, social responsibility and self-respect (Gillespie and Hillyer, 2002; Giles et al., 2004; Masser et al., 2008; Karacan et al., 2013). On the other hand, the major factors that constitute barrier for blood donation are the fears, pain, lack of free time, indifference and the misinformation and misbeliefs of the individuals (Wiwanitkit, 2002; Buciuuniene et al., 2006; Shaz et al., 2009; Duboz and Cuneo, 2010; Lownik et al., 2012).

Over the last a few decades there has been growing interest of exploring the concept of empathy in nursing approaches. The main aim of the nursing education is to teach students professional nursing applications. During the process, however, the students are required to learn not only the knowledge and techniques unique to nursing, but also acquire the basic nursing qualifications such as effective patient care, helping, consultation skills and development of emphatic approach (LaRocco, 2010; Williams and Stickley, 2010; Ouzouni and Nakakis, 2012; Cunico et al., 2012).

The development of empathy during training must therefore play a critical role in the training of nursing students as it affects their overall ability to communicate with blood donors and clients. This context it is highly important to determine the knowledge levels of the individuals regarding the issue of blood donation and to evaluate their misinformation and misbeliefs. The students of nursing should use their empathy skills in order to be a role model for the society.

A descriptive and cross-sectional study design has been used to determine the relationship between the knowledge, attitude and behaviors of the Turkish nursing students towards blood donation and their emphatic tendencies.

Methods

Design

The study was conducted over 160 students studying at School of Health in Karabuk University between the October and November 2013. 25 of the questionnaires completed by the students that agreed to participate in the study were not included in the analysis since they were not completely answered. Hence, the study was completed with 135 students. Prior to beginning the research, the institutional review board approval was obtained from Karabuk University Ethics Committee.

All the participants were informed about the aim of the study. They were assured that participation in the study is voluntary. Moreover, they were able to voluntarily withdraw from the study. We also guaranteed the confidentiality of their provided data and ensured them that their provided information will be published anonymously. Finally, we asked the participants to read and sign the study informed consent form.

Data Collection

The data was collected by using a questionnaire prepared in line with the information collected from the relevant literature (Wiwanitkit, 2002; Buciuuniene et al., 2006; Marantidou et al., 2007; Shaz et al., 2009; Karacan et al., 2013). The duration for answering of each questionnaire was about 15 to 20 minutes. While collecting

data, personal data collection form and the emphatic tendency scale were used.

“*Personal Data Collection Form*” is a questionnaire that includes questions on socio-demographic characteristics of the students (family type, income level, health coverage, the place of residence, the existence of health personnel in the family) and on their attitudes, knowledge and behaviors towards blood donation (blood donation experience, reasons of reluctance towards blood donation, evaluation of the concept of blood donation etc.).

“*Emphatic Tendency Scale (ETS)*” has been developed by Dökmen (1988) in order to measure the emotional components of the empathy and the empathy development potentials of the participants. Some of the items of the ETS whose reliability and validity tests have been completed include items that reflect the characteristics of self-centered communication. ETS includes 20 questions and uses the five-point Likert item which the respondents are asked to evaluate each item. In order to correct the ‘yes tendencies’ of the respondents, the first eight questions include negative statements. The score of the scale ranges from 20 to 100. Total score refers to the emphatic tendency points of each respondent.

Data analysis

The data was coded and entered into a database. Printed frequencies were used to check for outliers and to clean data. The data were cleaned accordingly and then exported to the SPSS version 16.0 (SPSS, Chicago, IL, USA) for analysis. The statistics used in data analysis include chi-square test, Spearman correlation analysis and independent samples t-test.

P-value of 0.05 was used as the significant level.

Results

The average age of the participant students is 21.01 ± 2.21 and 68.1% of the participants are female. 84.4% of the participants are members of nucleus family and 83.7% have medium income level. 54.8% of the students do not have health personnel in their families (Table 1).

26.7% of the students do not know their blood type whereas 83% of them have never donated blood. 38.5% of the students consider blood donation as “an example of self-sacrifice and virtue” whereas 40% of them stated that they are willing to donate blood. A 31.1% of the respondents stated that the people are reluctant to donate blood due to the pain caused by injection and the fear from faint whereas 87.4% are in the idea that promotion programs for blood donation are required (Table 2).

Table 3 shows the knowledge of the students regarding the blood donation. Although the students have responded true answers on questions related to blood donation, there are issues that they do not know. 81.5% of the respondents gave correct answer to the statement “the people that will donate blood should be between the ages of 18 and 65” and 79.3% of

them responded correctly to the statement “the donors should be examined before blood donation”. A 64.4 % of the students gave the correct answer to the statement of “those that have had hepatitis after the age of ten and those that are diagnosed with hepatitis B and C cannot donate blood”.

The study found that the male participants had more blood donation experience compared to the female participants and that the relation between gender and blood donation experience is meaningful ($X^2=5.275$; $p=0.02$).

There was no statistically significant difference between the blood donation experience and the existence of health personnel in the family, the existence of anyone in the family/around the participants with a disease that requires blood transfusion and the existence of a situation that required blood transfusion occurred in the family/around ($X^2=0.078$ $p=0.82$; $X^2=0.067$; $p=0.67$; $X^2=1.653$; $p=0.21$ respectively) (Table 4).

The students obtained an average score of 66.92 ± 10.1 from the Emphatic Tendency Scale (ETS) and the minimum and maximum scores are 43 and 91. No statistically significant relationship between the ages of the participants and their ETS scores ($r=0.008$; $p=0.93$).

It was found that the female participants scored higher compared to the male participants and that the relationship between gender and the ETS scores was statistically significant ($p=0.00$). It was also found that there was a statistically significant relationship between the ETS scores of the respondents and the existence of health personnel in their families ($p=0.03$).

Finally, there was no statistically significant relationship between the ETS scores and the existence of anyone in the family/around the participants with a disease that requires blood transfusion or the existence of a situation that required blood transfusion occurred in the family/around ($p=0.93$; $p=0.88$ respectively) (Table 5).

Discussion

Today, most of the developing countries suffer from the problem of finding voluntary donors for blood donation (Giles et al., 2004; Lownik et al., 2012; WHO, 2014). It is a fact that the ratio of blood donation in Turkey is not adequate. This study has revealed that most of the participant students have never donated blood. The studies on university students and on various profession

groups have revealed similar findings (Buciuniene et al., 2006; Vasquez et al., 2007; Sampath et al., 2007; Shaz et al., 2009; Duboz and Cuneo, 2010; Lownik et al., 2012). Therefore inadequate blood donation is a serious problem.

In this study, although most of the students consider blood donation as an example of self-sacrifice and virtue, less than half of them stated that they are willing to donate blood. It was found that blood donation is a significant predictor of individual self-sacrifice attitude (Giles et al., 2004; Sampath et al., 2007; Karacan et al., 2013).

In one of the studies, although 93% of the participants considered blood donation as a citizenship duty, only 28.2% of the participants stated that they were willing to donate blood. In another study, most of the participants considered blood donation as the most efficient way of lifesaving (Buciuniene et al., 2006; Sampath et al., 2007; Duboz and Cuneo, 2010). Despite the positive consideration of blood donation by various segments of the society, it is seen that such positive feelings do not influence the individual tendencies to donate blood.

Table 1. Socio-demographic characteristic of the nursing students

Characteristics	N	%
Gender		
Male	43	31.9
Female	92	68.1
Family type		
Nucleus	114	84.4
Extended	21	15.6
Income Level		
Poor	7	5.2
Medium	113	83.7
Good	15	11.1
Health Insurance		
Exists	123	91.1
Does not exist	12	8.9
Type of home city		
Village/Town	25	18.5
Province	66	48.9
Sub-province	44	32.6
Existence of health personnel in the family		
Yes	61	45.2
No	74	54.8

Table 2. The attitudes of the students towards blood donation (n=135)

Attitudes towards blood donation	n	%
Knowledge of blood group		
Yes	99	73.3
No	36	26.7
Is there anyone in your family/around you with a disease that requires blood transfusion?		
Yes	10	7.4
No	125	92.6
Has any situation that required blood transfusion occurred in your family/around you?		
Yes	38	28.1
No	97	71.9
Blood donation experience		
Yes	23	17.0
No	112	83.0
Do you think of donating blood?		
Yes	54	40.0
Yes but I do not fulfill the requirements for blood donation	35	25.9
No	9	6.7
I am undecided	15	11.1
I might donate in a necessary situation	22	16.3
How do you evaluate blood donation?		
It is an example of self-sacrifice and virtue.	52	38.5
It is a citizenship duty	26	19.3
It makes me feel confident in case I need blood transfusion.	16	11.9
I consider blood donation as the most effective way of saving life.	40	29.6
Other	1	0.7
In your opinion, what is the most important reason behind the people's reluctance to blood donation?		
The pain caused by injection and the fear of faint	42	31.1
Knowledge deficits of the individuals regarding the importance of the issue	38	28.1
Misbeliefs and misinformation regarding blood donation	19	14.1
Indifference and the lack of interest towards the people other than the members of the family/people around us	4	3.0
Ignoring blood donation even if the person is aware of the importance of the subject	30	22.2
Other	2	1.5
Do you think that the programs devised for promotion of blood donation are required?		
Yes	118	87.4
No	17	12.6

Table 3. The knowledge of the students related to blood donation

Knowledge of Students	True %	False %	Do not know %
The people that will donate blood should be between the ages of 18 and 65	81.5	3.7	14.8
People that weigh less than 50 kg can also donate blood	9.6	71.9	18.5
The blood pressure of the person that will donate blood should be at normal levels. Systolic and diastolic blood pressures should not be more than 180 and 100 mm Hg respectively. Patients with hypertension can also donate blood in case their blood pressure is at normal levels.	45.9	15.6	38.5
Hemoglobin values of the donors should be evaluated. The hemoglobin levels should be over 13, 5 gr/dl for males and 12, 5 gr/dl for females.	61.5	5.9	32.6
People that use drugs can donate blood.	5.9	84.4	9.6
The maximum amount of blood that can be taken at one time is 450 ml.	54.8	10.4	34.8
There is no side effect of blood donation	51.9	26.7	21.5
Those that have had hepatitis after the age of ten and those that are diagnosed with hepatitis B and C cannot donate blood.	64.4	8.1	27.4
With a period of at least two months between two donations, the males can donate blood at most six times a year and the female can donate blood at most four times a year.	34.8	22.2	43.0
Those that have risky professions should rest for at least 12 hours after blood donation.	26.7	16.3	57.0
Pregnant women can donate blood	7.4	57.8	34.8
The persons that will donate blood should not have lesions, such as local eczema.	63.7	3.7	32.6
Donated blood cannot be kept more than 21 days.	21.5	17.8	60.7
The donors should be examined before blood donation.	79.3	3.7	17.0

Table 4. The relationship between some independent variables and blood donation experience.

Some Characteristics of the students	Blood Donation Experience		X ²	df	P
	Yes (%)	No (%)			
Gender			5.275	1	0.02
Male	27.9	72.1			
Female	12.0	88.0			
Existence of health personnel in the family					
Yes	18	82	0.078	1	0.82
No	16.2	83.8			
Is there anyone in your family/around you with a disease that requires blood transfusion					
Yes	20.0	80.0	0.067	1	0.67
No	16.8	83.2			
Has any situation that required blood transfusion occurred in your family/around you?					
Yes	23.7	76.3	1.653	1	0.21
No	14.4	85.6			

Table 5. Influence of some independent variables over the ETS Scores

Some characteristics of the students	ETS Scores					
		X ² ±SS	F	t	df	P*
Gender	<i>Male</i>	63.00±9.21	0.143	-3,160	133	0.00
	<i>Female</i>	68.76±10.1				
Blood donation experience	<i>Yes</i>	66.52±12.1	2.535	-0.208	133	0.83
	<i>No</i>	67.00±9.79				
Existence of health personnel in the family	<i>Yes</i>	69.01±9.62	0.731	2.194	133	0.03
	<i>No</i>	65.20±10.39				
Is there anyone in your family/around you with a disease that requires blood transfusion?	<i>Yes</i>	67.20±10.46	0.484	0.088	133	0.93
	<i>No</i>	66.90±10.21				
Has any situation that required blood transfusion occurred in your family/around you?	<i>Yes</i>	67.13±9.57	0.999	0.146	133	0.88
	<i>No</i>	66.84±10.47				

*Independent sample t-test

When the reasons behind the reluctance to donate blood was analyzed, most of the participants of this study expressed pain caused by injection, the fear of faint and the knowledge deficit regarding the seriousness of the subject as the prime reasons behind the inadequate interest in blood donation. The studies conducted on the subject have found that the individuals were reluctant to donate blood due to their fears from weakening, pain, fainting and vertigo (Wiwanitkit, 2002; Buciuניene et al., 2006; Duboz and Cuneo, 2010; Gader et al., 2011; Sabu et al., 2011; Lownik et al., 2012). In another study, the most important reasons behind the reluctance of students to donate blood were found as ignoring, the idea that the individual does not have blood enough to donate and the idea that blood donation is not necessary since there are donors enough with the same blood (Buciuניene et al., 2006; Duboz and Cuneo, 2010; Lownik et al., 2012; Abderrahman and Saleh, 2014). On the other hand, a doubt about the sterilization of the equipment used in blood donation was found as a challenge to donate (Vasquez et al., 2007). These findings are parallel to the findings of this study. It is considered that the students and members of various segments of the society have misbeliefs and misinformation regarding the issue of blood donation. With its ability to access the masses and to spread information, the media plays a crucial role in shaping the beliefs, attitudes and the behaviors of the people (Glynn et al., 2003; Giles et al., 2004). The participants of this study have stated that programs to promote blood donation are required. The media can be used for informing the members of the society regarding the importance of health. Recently, public spots on various important subjects and problems have been widely used in the televisions. The negative influences of the culture, religion and traditions over attitudes and behaviors can be changed with effective informing. When the knowledge level of the participants was evaluated, it was found that most of the students gave the correct answer to the statement “the people that will donate blood should be between the ages of 18 and 65”.

In a study conducted by Özbeşer et al, half of the participants had given the correct answer

to the question on the age limits for blood donation (Ozbeser et al., 2013).

Our study has also found that 79.3% of the participants have answered correctly to the statement “the donors should be examined before blood donation”. This finding is similar to the study of Yıldız et al. in which 83.9% of the participants stated that the donors should be examined before blood donation and 86.4% stated this fact as to protect the health of both the donor and the receiver (Yıldız et al., 2006). The statement “those that have had hepatitis after the age of ten and those that are diagnosed with hepatitis B and C cannot donate blood” was answered correctly by 64.4% of the nursing students in this study. In a similar vein, the study conducted by Özbeşer et al. found that 94% of the participants stated that those with contagious disease cannot donate blood (Ozbeser et al., 2013). It can be considered that the participants are reluctant to donate blood due to the reasons discussed before although the criterion for blood donation is well-known. This study has revealed that the male students donated blood more than the female students. In some studies, was founded no statistically significant relationship between the gender and blood donation experience (Wiwanitki, 2002; Sampath et al., 2007). However, various studies found that the males donate blood more than the females (Marantidou et al., 2007; Birgili and Khorshid, 2011). The hemoglobin levels of the women are lower than the males. Besides, since they lose iron during the menstrual period, they are under risk of anemia. These factors can be considered as the reasons behind the reluctance of the females to donate blood.

The low ratio of blood donation and the indifference of the individuals towards blood donation can be interpreted as the lack of empathy developed by the members of the society. The person that would develop empathy should put himself/herself into someone’s shoes and should see the events from the other’s perspective. For developing empathy, the individual should understand the feelings and ideas of the other side (Ozcan et al., 2010; LaRocco, 2010; Ouzouni and Nakakis, 2012). The students that participated in this research obtained an average score of 66.92 ± 10.1 with minimum

43 and maximum 91 from the Empathic Tendency Scale (ETS). In a study conducted over students of nursing, the average score was found 69.55. In another study, the empathic tendencies of the first grade nursing students were evaluated and an average score of 75.91 ± 8.35 was found (Arifoglu and Razi, 2011). This situation might stem from the gradual development of empathic communication among the students of health. However, since the maximum score to be obtained from the ETS is 100, the students are expected to increase their empathic tendencies.

This study found that gender is an influential factor over the ETS scores and that the female participants scored better. Other studies also found that the gender was an important factor influencing the empathic tendencies (Ozcan et al., 2010; LaRocco, 2010; Cunico et al., 2012). Social factors such as culture and gender influence the way that the emotions are displayed. The feminine culture is a tendency to have concerns and life quality. The indicators of the feminine culture include caring about humans and interpersonal relations and prioritizing the general life quality (LaRocco, 2010; Ouzouni and Nakakis, 2012). Consequently, higher scores for the female participants was an expected outcome. Our study also found that the participants with health personnel in their families scored better. Those with health personnel in their families are generally more familiar to the health issues. Besides, they have more knowledge about these issues compared to other members of the society. With more knowledge and consequent perspective, they seem to have developed more empathic tendencies.

Conclusion

According to the findings of this study, it is visible that the ratio of blood donation among the students of nursing is not at expected levels. Education programs for the students of nursing who will direct the society with their knowledge and behavior might be conducted. Empathic tendency, which is crucial for the students to develop empathy with the patients and their relatives is an important phenomenon to be developed not only during the process of education but

also at later times. Empathy is an important characteristic that the health personnel should acquire for improved health quality. It is certain that the target population of this study needs to develop their empathic skills. This might be maintained by incorporation of new lessons related with the empathic skills to the curriculum. In a future research study the sample would be expanded to include more nursing schools gathering more information attitudes and behaviors towards blood donation and their empathetic tendencies. Additionally, further research on the relationship between empathy and blood donation and on different samples might be conducted.

Implications

The current study explored the nursing students' attitudes and behaviors towards blood donation and their empathetic tendencies in Turkey. Nursing educators and students can use the study findings for improving the quality of nursing practice in blood donation. This context it is highly important to determine the knowledge levels of the individuals regarding the issue of blood donation and to evaluate their misinformation and misbeliefs. The students of nursing should use their empathy skills in order to be a role model for the society

Study Limitations

The study has several limitations. First, this study is designed as a cross-sectional study with a small sample size. It includes all the limitations of a cross-sectional study including selection because of differential participation. Second, this study relies on the possibility of retrospective recall of traditional practices. Moreover, the restriction of the data to one hospital only in the south part of Turkey limits the generalizability of the results.

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