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The Role of a Theory-Based Educational Intervention Among Youth in Encouraging to Register Organ Donation Cards

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ABSTRACT

Aims Since important organs of brain-dead patients can be transplanted to patients in need, this study aimed to determine the effect of educational intervention based on the theory of planned behavior (TPB) on the youth of Ivan to receive an organ donation card.

Materials & Methods This randomized clinical trial was performed on 80 people (40 people in each of the intervention and control groups). Samples were selected by two-stage random cluster sampling. A researcher-made questionnaire was used for data collection and data were analyzed by SPSS version 26 at a significance level of 0.05.

Findings The mean age in the intervention and control groups was respectively 24.90±2.56 and 24.03±2.55 years. In both groups, 50% of the people were women. There was no significant difference between the two groups in terms of education level. The mean scores of the structures of the planned behavior theory (attitude, mental norm, perceived behavioral control, and behavioral intention) before the educational intervention in the intervention and control groups were not significantly different. After the educational intervention, the mean score of the structures of the planned behavior theory, including attitude (47.02±2.18 vs. 38.05±6.28), mental norm (17.47±2.03 vs. 13.42±2.38), perceived behavioral control (19.20±1.45 vs. 15.17±3.78), and behavioral intention (9.62±0.74 vs. 6.97±2.05) increased significantly in the intervention group ($p<0.001$) but in the control group, none of the structures had a significant improvement ($p>0.05$).

Conclusion Training based on the theory of planned behavior led to a significant increase in its structures to receive an organ donation card in young people.

Keywords Young Adult; Organ Transplantation; Health Education; Attitude

CITATION LINKS

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Introduction

Brain death refers to a state in which the patient has lost his cortical and brainstem activities, cannot breathe and respond to internal and external stimuli, and is in a state of complete coma [1]. Once brain dead is declared, the organs and tissues may be transplanted into patients suffering from insufficiency [2]. Organ donation is one of the most effective ways to improve the quality of life of people. It is estimated that 5 to 7% of patients die before receiving a suitable organ [3]. Specialists and organ transplant surgeons are well aware of the prevalence of chronic organ failure and the importance of organ transplantation, and they try to investigate brain death and support organ donation on time [4]. Organ transplantation in Iran has a history of more than 40 years [5]. The concept of organ transplantation was proposed many years ago with the approval of the law on organ donation. Many efforts have been made to develop humanitarian action with ethical considerations, but the organ donation rate is very low compared to the number of brain-dead people. According to the Iranian Organ Donation Association report, about 5,000 people in Iran die due to brain death annually. In comparison, of 3,000 people who were eligible for organ donation died of brain death in 2017, only 926 people had organ donation [6]. Statistics in Iran show that a small percentage of people with brain death are candidates for organ donation, which is not an answer to people in need [7]. The lack of organs for transplantation is an unsolved global problem; thus, the number of patients who die due to the lack of a transplanted organ is always increasing, and to reach the desired state, it is necessary to recognize and remove the obstacles to organ transplantation [8].

According to the Iranian Organ Donation Association report, about 5 million Iranians have organ donation cards. While 200 to 300 donation cards were requested daily in the past, after holding various cultural and educational courses, this amount has increased significantly [6]. Theory-based educational programs are the most effective interventions rooted in behavior change patterns [9, 11].

One of the important theories for designing evidence-based interventions is the theory of planned behavior (TPB) [11]. TPB predicts the occurrence of a specific behavior, provided that the person intends to do it. According to the theory, the intention to perform a behavior is predicted by attitude, mental norms, and perceived behavioral control [12].

The TPB can be considered an important theory to affect the intention to get an organ donation card properly. The theory assumes a person is a rational operator, so a person processes information before performing a behavior. During the process, a person's fundamental beliefs and, as a result, his behavior may change. According to the theory, people's intention to perform a behavior is the most important factor in predicting that behavior [13]. Regarding the importance of organ donation, using TPB to create motivation, strengthening intention and behavior, and considering no similar study in this regard in Eyvan, this study was conducted to assess the role of TPB in encouraging the youth of Eyvan to receive an organ donation card.

Materials and Methods

Study design

The statistical population of this experimental study was 18-29-year-old youth of Eyvan selected by a two-stage cluster sampling method. First, two health centers were randomly selected from the four urban health centers using the random allocation software RAS 1.0.0. Next, among the neighborhood health centers covered by each base, one neighborhood health center for the intervention group and one for the control group were selected randomly. The total number of health centers in Eyvan was 22. Then, those aged 18-29 years from each center were considered, and using G*power software with a power of 80% and effect size of 60% for the independent t-test with an alpha of 5.0%, the sample size was calculated, and 10% was added to the sample size to control the fallout. The resulting sample size was 40 people for each group.

Inclusion criteria included being between 18 and 29 years old, informed consent, physical health, and no history of organ donation for oneself and his/her family, and the exclusion criteria included not attending training sessions and not completing the questionnaire.

Data collection tool

The tool used was a researcher-made questionnaire with two parts, including demographic information and questions about the TPB on organ donation. The demographic information included age, gender, marital status, and education level. For the constructs of attitude (ten questions), mental norm (four questions), self-efficacy (three questions), and behavioral intention (three questions), a total of 20 questions were designed. For example, for the attitude construct, the item "organ donation is a divine thing"; for the mental norm construct, the item "If I receive an organ donation card, my family will approve it"; for the perceived behavioral control construct, the item "organ donation is impossible for me after death" and the item "I will try to get an organ donation card" was designed to construct the behavioral intention. To determine the validity of the constructs of TPB, the content validity (CV) method, including the content validity ratio (CVR) and the content validity index (CVI) was used using a panel of ten health education and health promotion experts. To ensure the reliability of the questionnaire, a pilot study was conducted on 30 people. The validity and reliability results of the tool are presented in Table 1.

Table 1. Validity and reliability of the questionnaire

Construct	Content validity index	Content validity ratio	Reliability (Cronbach's Alpha)
Attitude	0.97	0.78	0.75
Mental norms	0.99	0.95	0.79
Perceived behavioral control	0.83	0.93	0.78
Intention	1.00	1.00	0.76

Intervention

The participants completed the self-report questionnaire before and two months after the intervention. After collecting the pre-test data, the training program was implemented in line with the constructs of TPB for the intervention group. The training was held in one month (five sessions), each taking one hour (20:00 to 21:00) using WhatsApp. Educational topics included the definition of organ donation and the comparison of organ donation in Iran and worldwide, the difference between coma and brain death, common beliefs and correction of negative beliefs, persuasion, and presenting organ donation videos. The participants were allowed to ask questions and answers during the training course. Audios, videos, and images were used in the training sessions. Two months after the intervention, both groups completed the questionnaire again. The control group did not receive any educational intervention.

Ethical issues

The approval was obtained from the Ethics Committee of Ilam University of Medical Sciences (ID IR.MEDILAM.REC.1400.042), and the research was registered at the Iranian Registration of Clinical Trials (IRCT20211210053347N1). Written informed consent was obtained from all study participants after explaining the study's aims.

Statistical analysis

SPSS 26 software was used to analyze the collected data, and the significance level in all tests was less than 0.05. The t-test was used to compare the quantitative variables between the groups, and the Chi-square test was used for the qualitative variables.

Findings

The intervention and control groups' mean ages were 24.90±2.56 and 24.03±2.55 years, respectively (p=0.573). Half of the cases in both groups were women (20 people in both groups). The two groups had no significant differences regarding marital status and education level (p>0.05; Table 2).

There were significant differences between the mean score of attitudes, mental norms, perceived behavioral control, and the intention to receive a donation card in the intervention group before and after the training (p<0.05; Table 3).

Before the educational intervention, the independent t-test showed no significant difference between the average score of attitudes, mental norms, perceived behavioral control, and the intention to receive an organ donation card between the intervention and control groups (p>0.05). However, after the educational intervention, a statistically significant difference was observed in the average score of attitudes, mental norms, perceived behavioral control, and the intention to receive an organ donation card between the intervention and control groups (p<0.05).

Table 2. Comparison (Chi-Square test) of the frequency (numbers in parentheses are percentages) of demographic characteristics of the intervention and control groups

Parameter	Interventional (n=40)	Control (n=40)	p Value
Sex			
Male	20 (50.0)	20 (50.0)	0.999
Female	20 (50.0)	20 (50.0)	
Marital status			
Single	28 (70.0)	28 (70.0)	0.999
Married	12 (30.0)	12 (30.0)	
Education			
Diploma and under	15 (46.9)	17 (53.1)	0.648
Academic	25 (52.1)	23 (47.9)	

Table 3. Comparison (paired T-test) of the mean scores of the theory of planned behavior structures before and after intervention in each group

Parameter	Before	After	p Value
Attitude			
Intervention	39.63±3.97	47.02±2.18	0.001
Control	38.20±6.01	38.05±6.20	0.711
Mental norms			
Intervention	13.38±3.09	17.47±2.03	0.001
Control	13.25±2.81	13.42±2.38	0.506
Perceived behavioral control			
Intervention	15.60±3.22	19.20±1.45	0.001
Control	14.88±3.77	15.17±3.78	0.258
Intention			
Intervention	7.13±16.5	9.62±0.74	0.001
Control	7.03±2.04	6.97±2.05	0.736

Discussion

The results of the present study showed that the educational intervention based on the TPB significantly increased the average score of all TPB constructs in the intervention group compared to before the intervention and led to a significant improvement in attitude, mental norms, perceived behavioral control, and behavioral intention of young people toward receiving an organ donation card.

In line with the results of the present study, Holzer *et al.* reported that training based on the TPB can significantly increase the average score of attitudes, mental norms, perceived behavioral control, and behavioral intention to donate stem cells in studied people after the intervention and on the other hand, an increase in the attitude, mental norm, and perceived behavioral control can determine the increase in intention. These results show the importance of education more than before [14].

In line with the results of the present study, Lin *et al.* stated that a TPB-based educational program increased the attitude and behavioral intention of intensive care unit (ICU) nurses in support of organ

donation and recommended repetitive training to increase the participation of nurses in supporting organ donation [15].

In this regard, Bae *et al.* reported that a TPB-based educational program improved all TPB structures regarding cornea donation in the intervention group [16].

Mohebi *et al.* also showed a significant difference between the average intention score of two groups of members and non-members in the organ donation bank in terms of behavioral intention [17]. Therefore, those who participate in receiving an organ donation card have a higher behavioral intention and show the need to strengthen the intention through training for more action.

According to the results of the present study, Kukulj reported an increase in positive intention for organ donation among students after providing organ donation education [18]. In a study by Hyde and White, attitude, mental norms, and perceived behavioral control effectively predicted the intention of organ donation in participants [19]. The results of Rocheleau also support the use of the theory of extensively planned behavior to predict the intention and behaviors related to organ donation [20]. Therefore, according to the mentioned contents, training, especially training based on the TPB, can improve behavioral intention to get an organ donation card in young people.

Azmandian *et al.,* in line with the results of the present study, concluded that after training, the knowledge and attitude average scores of the investigated nurses toward the process of brain death and organ donation increased significantly [21].

In this regard, Nikbakht *et al.* reported that the attitude score of people who want to receive an organ donation card is higher than people who do not want to receive an organ donation card, and increasing people's awareness is important to change beliefs [22].

Arjomand *et al.* also showed that the level of knowledge and attitude of organ donation card volunteers was significantly higher than that of non-volunteers; this study showed that the main reason for unwillingness to donate organs and tissues is insufficient knowledge, negative attitudes, and incorrect information in the field of donation and transplantation. Therefore, it is possible to increase the number of donations and, as a result, the level of connection with public education at the community level and create a positive attitude [23].

By increasing the knowledge about organ donation, the attitude toward organ donation can be strengthened [24], and the importance of the issue becomes apparent when the results of the studies indicate the relationship between attitude and behavioral intention throughout the donation process [11, 13]. The prediction of people with a better attitude toward organ donation is that people in their social network also support their decision to donate organs [11, 13, 25].

Regarding the importance of training and promoting mental norms to encourage people to receive an organ donation card, Khoshravesh *et al.* concluded that mental norms significantly directly affect receiving an organ donation card. These results show that regarding the design and implementation of interventions to increase receiving organ donation cards, it is necessary to pay attention to the variables based on the cultural and religious context of the studied population [26].

Emdadi *et al.* also reported that those with an organ donation card had a significantly higher score of abstract norms than those without a card [27].

El-Menyar *et al.* reported that behavioral and normative beliefs play an important role in a person's intention to donate an organ [28]. Stephenson *et al.* also concluded that people's abstract norms have a positive role in people's satisfaction with receiving an organ donation card [29].

The role of mental norms regarding receiving an organ donation card is such that if a person finds out that a close friend or a member of his/her family supports organ donation, he/she will feel a lot of pressure to receive an organ donation card and most likely will follow receiving the organ donation card behavior [27]. Therefore, the attitude and performance of the family members and the community have a great influence on the mental norms to take action to receive the organ donation card and to achieve significant results; education should be provided to different types of society.

Ghaffari *et al.* evaluated the relationship between the TPB constructs and behavioral intention. It showed that the perceived behavioral control was more related to the student's intention to receive an organ donation card than other constructs. Therefore, perceived behavioral control affects participants' donation decisions. We also need to prepare families with knowledge of organ donation due to their influence on the approval or disapproval of the individual's organ donation and perception of the decision-making process. Our results have important implications for a more community-oriented education program and to encourage students to register as organ donors [13]. Based on the TPB, a favorable attitude and a supportive mental norm motivate one to participate in the behavior. Still, the intention to do it will be formed only when the perceived control over the behavior is strong enough [5].

Regarding carrying an organ donation card, a person's behavior indicates the extent to which he/she feels able to receive and regularly carry an organ donation card. The perceived behavioral control affects the individual's intention to engage in the behavior and indicates the individual's willingness to expend effort to complete the behavior [25].

According to the TPB, all effects on behavior act through behavioral intention or perceived behavioral

control [30]; therefore, one of the most important structures along with intention and behavior of organ donation and action to receive an organ donation card is perceived behavioral control structure and considering that in the present study, education based on the TPB had a positive and significant effect on the promotion of the structure in young people, it is suggested to use this educational method for different groups of society.

Contrary to the reported results on the relationship between perceived behavioral control and behavioral intention to donate, Park *et al.* showed that attitudes and mental norms are significantly related to the intention to register for organ donation. In contrast, perceived behavior control did not have a significant relationship. To justify this result, the authors stated that when the target behavior is completely voluntary, perceived behavioral control cannot predict the behavior. The results may indicate that the participants consider donation registration behavior as a purely voluntary behavior, and therefore, as far as perceived control is concerned, rather than actual control, people may consider registration as a behavior that they can perform whenever they want. If so, there may be barriers that people are unaware of but still influence enrollment behavior. People do not perceive these barriers as deterrents, but these barriers may still act against people's registration behaviors [31].

The use of a theory-based study and the implementation of the study among the members of health centers in Eyvan are the strengths of the study, and the small sample size, completion of the questionnaires by self-administered method, and the lack of samples from the rural community are some of the limitations of the present study. It is suggested to perform studies in the future to investigate the impact of theory-based training on organ donation behaviors in larger samples and rural youths. Unfortunately, most accidents, injuries, and cases of brain death occur among young people, making it crucial to increase knowledge and awareness in this age group. We should encourage them to discuss these issues in family conversations, which serve as the foundation for strengthening mental norms. Additionally, society must establish organ donation card registration centers in every organization and institution, enabling individuals to act as organ donor volunteers through perceived behavioral control.

Conclusion

Training based on the TPB increases the attitudes, subjective norms, perceived behavioral control, and intention to volunteer for an organ donation card among youth.

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References

1- Koenig MA, Kaplan PW. Brain death. Handb Clin Neurol. 2019;161:89-102.
2- Kirschen MP, Lewis A, Rubin M, Kurtz P, Greer DM. New perspectives on brain death. J Neurol Neurosurg Psychiatry. 2021;92(3):255-62.
3- Yoshikawa MH, Rabelo NN, Welling LC, Telles JPM, Figueiredo EG. Brain death and management of the potential donor. Neurol Sci. 2021;42(9):3541-52.
4- Saran J, Padubidri JR. Brain stem death-an overview. Med Leg J. 2019;87(1):18-20.
5- Abbasi P, Yoosefi Lebni J, Nouri P, Ziapour A, Jalali A. The obstacles to organ donation following brain death in Iran: A qualitative study. BMC Med Ethics. 2020;21(1):83.
6- Tehran Times. Organ donation cards issuance surge in Iran [Internet]. Tehran: Tehran Times. 2018 Aug- [cited 2018 August 19]. Available from: https://www.tehrantimes.com/news/426682/Organ-donation-cards-issuance-surge-in-Iran.
7- Rafii F, Rahimi S. Organ donation decision in families with brain-dead patients: An evolutionary concept analysis. Prof Case Manag. 2022;27(2):67-84.
8- Manara AR, Thomas I. Current status of organ donation after brain death in the UK. Anaesthesia. 2020;75(9):1205-14.
9- Pezeshki B, Karimi G, Mohammadkhah F, Afzali Harsini P, Khani Jeihooni A. The effect of educational intervention based on health belief model on eye care practice of type II diabetic patients in southern Iran. ScientificWorldJournal. 2022;2022:8263495.
10- Azadi NA, Ziapour A, Lebni JY, Irandoost SF, Abbas J, Chaboksavar F. The effect of education based on health belief model on promoting preventive behaviors of hypertensive disease in staff of the Iran University of Medical Sciences. Arch Public Health. 2021;79(1):69.
11- Latifi M, Pauli J, Dehghani S, Nejad MS. Application of theory of planned behavior on organ donation behavior: A systematic review. Saudi J Kidney Dis Transpl. 2021;32(5):1201-13.
12- Bosnjak M, Ajzen I, Schmidt P. The theory of planned behavior: Selected recent advances and applications. Eur J Psychol. 2020;16(3):352-6.
13- Ghaffari M, Rakhshanderou S, Najafizadeh K, Ramezankhani A, Latifi M. Determinants of medical students for intention to organ donation: Application of theory of planned behavior. Saudi J Kidney Dis Transpl. 2019;30(6):1375-80.
14- Holzer J, Elster D, editors. Testing of an intervention to promote students'intention regarding stem cell donation.

12th International Conference on Education and New Learning TechnologiesOnline Conference; 2020 Jul 6-7. Bremen: University of Bremen; 2020. p. 3440-8.
15- Lin LM, Lin CC, Chen CL, Lin CC. Effects of an education program on intensive care unit nurses' attitudes and behavioral intentions to advocate deceased donor organ donation. Transplantation Proceedings. 2014;46(4):1036-40.
16- Bae HS, Kang S. The influence of viewing an entertainment-education program on cornea donation intention: A test of the theory of planned behavior. Health Commun. 2008;23(1):87-95.
17- Mohebi S, Mohammadi Zavareh M, Zamani F, Gharlipor Z, Heidary H. Factors affecting qom medical school students intention regarding organ donation: A study based on behavioral intention model. J Health Lit. 2016;1(3):147-54. [Persian]
18- Kukulj A. The effect of education on knowledge and intent to donate organs among college students. California: California State University; 2014.
19- Hyde MK, White KM. To be a donor or not to be? Applying an extended theory of planned behavior to predict posthumous organ donation intentions. J Appl Soc Psychol. 2009;39(4):880-900.
20- Rocheleau CA. Organ donation intentions and behaviors: Application and extension of the theory of planned behavior. J Appl Soc Psychol. 2013;43(1):201-13.
21- Azmandian J, Shokouhi M, Poorhoseini SS, Mirzaei MR. Study of education effect on nurses'knowledge and attitudes about organ donation at the time of brain death. Iran J Crit Care Nurs. 2013;6(1):11-20. [Persian].
22- Nikbakht S, Hejazi S, Jouybari L, Haresabadi M, Davoodi D, Hoseini T, et al. Knowledge and attitudes toward brain death and organ donation in Bojnurd. Electron Physician. 2017;9(7):4746-52.
23- Arjomand B, Aghayan S, Goudarzi P, Emami RS, Jafarian A. Knowledge and attitude of donor card holders toward organ and tissue donation in iranian tissue bank: A case-control study. Transplant Proc. 2009;41(7):2715-7.
24- Aksoy N, Temür BN, Taşdemir D. Determining the knowledge and attitudes of theological students in Turkey about brain death and organ donation. J Relig Health. 2021;60(6):4387-401.
25- Ghaffari M, Latifi M, Rocheleau C, Najafizadeh K, Rakhshanderou S, Ramezankhani A. Using the theory of planned behavior framework for designing interventions related to organ donation. New York: Springer; 2018.
26- Khoshravesh S, Karimi-Shahanjarini A, Poorolajal J, Bashirian S, Barati M, Hamidi M, et al. Socio-cultural factors contributing to being an organ donor in Iranian employees. Community Health Equity Res Policy. 2022;42(2):171-9.
27- Emdadi S, Jalilian F, Shiri M, Mirzaei Alavijeh M, Morshedi M, Ahmadpanah M, et al. The relationship between subjective norms and registered volunteer organ donors among students of Hamadan university of medical sciences. Iran J Forensic Med. 2012;17(4):217-24 [Persian].
28- El-Menyar A, Al-Thani H, Mehta T, Varughese B, Al-Maslamani Y, Mekkodathil AA, et al. Beliefs and intention to organ donation: A household survey. Int J Appl Basic Med Res. 2020;10(2):122-7.
29- Stephenson MT, Morgan SE, Roberts-Perez SD, Harrison T, Afifi W, Long SD. The role of religiosity, religious norms, subjective norms, and bodily integrity in signing an organ donor card. Health Commun. 2008;23(5):436-47.
30- Ajzen I. The theory of planned behavior: Frequently asked questions. Human Beh Emerg Technol. 2020;2(4):314-24.
31- Park HS, Smith SW, Yun D. Ethnic differences in intention to enroll in a state organ donor registry and intention to talk with family about organ donation. Health Commun. 2009;24(7):647-59.