Willingness of Combat Military Personnel to Donate Organs

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IN ISRAEL, the percentage of persons willing to donate organs is between 40% and 49%, a rate that is much lower than in Western countries. The main reasons for refusing to donate organs are based on religion (wholeness of the corpse), superstitions, as well as psychological and emotional inhibitions. One way to solve the problem and reduce the refusal rate is to provide information to increase public awareness. In the framework of the information activities that organ transplantation coordinators provide throughout the country, we focused on a distinctive target population, soldiers in active service.

The draftees in the Israeli Defense Forces (IDF) are at the end of their adolescence (aged 18 years). At this time young adults in Western countries are beginning their college or work careers, whereas their peers in Israel enter the army for an extended period of time. Military service becomes the center of young recruits lives, their social status is elevated, and they feel that they are making a contribution to Israeli society. This in turn has a positive influence on their self image, and helps form attitudes which will help later on in civilian life.

Military service is also characterized as a period of development and maturation, during which there is an increased sense of conformity to social values. However, the draftees are likely to find themselves in an acute transition to a rigid and demanding framework, which sharply reduces their freedom of choice, their privacy, and their individuality, along with the numerous anxieties likely to arise during military service.

Studies have shown that one factor that leads to a fear of death is the presence of life-threatening situations. There is an increased anxiety surrounding death among persons in occupations that endanger life, for example, soldiers and fire fighters. A symbolic or real life-threatening situation may arouse the defense mechanisms of soldiers.

The question arises whether, it is proper in situations such as these, to consider the complex issues of death and making cardinal decisions regarding organ donation. At present, the literature has not reported on the subject of organ donation among soldiers on active military service. In this study we examined the attitudes of soldiers towards organ donation and whether provision of information had an influence on willingness to sign a donor card.

METHODOLOGY

We constructed a basic model for a lecture that provides information on the shortage of organs in Israel (and throughout the world), the definition and declaration of brain death, the ethical, religious and legal aspects of the question, and finally the reasons that families prefer to refuse organs donation. The lectures were delivered by transplantation coordinators who had undergone special training in presentation skills. The 90-minutes lectures were accompanied by slides, a video film, and a true-life story of a transplant recipient.

We analyzed 269 questionnaires, which had been distributed to and returned from soldiers in 16 different units during their regular and career army service during 1999 and 2000. The soldiers filled out the two questionnaires: one instrument completed before the lecture examined their attitudes, previous exposure to the subject, and willingness to sign a donor card. The second questionnaire, distributed immediately after the lecture, examined the influence of the information received to enhance attitudes and behavior that encourage donation. The data was analyzed by means of $\chi^2$ and logistic regression statistical tests.

Among the population of 206 male (77%) and 63 female (23%) soldiers, 226 were born in Israel (84%) and the rest, 43 (16%), were born abroad. Two thirds were non-religious.

RESULTS

There seems to be an influence of the lectures on willingness to sign a donor card ($n = 257$). Before the lecture, 52% of the soldiers had not thought about the subject, after the lecture, 50% of them were wavering on the possibility of signing the card. The percentage of those unwilling to sign was reduced to half after the lecture, namely 14% to 7%. The percentage of those who claimed to have signed a donor card before the lecture was 9% ($n = 23$). The importance of the subject of organ donation was perceived by 91% of the 269 soldiers, before the lecture felt that the...
subject was important, and, after the lecture, a number that increased to 97% (n = 258).

The factors that explain willingness to sign a donor card were examined by logistic regression, which predicted 72% of those willing to sign: (1) non-religious soldiers were more willing to sign a donor card than religious soldiers (P = .037), (2) soldiers who spoke with their families before the lecture were more willing to sign a donor card (P = .000), (3) soldiers who had been more exposed to information on the subject before the lecture; (4) giving information on the shortage of organs for transplants was the most effective tool to raise the willingness of soldiers to sign a donor card (P = .066.)

The characteristics that were not found to influence or explain willingness to donate were as follows: previous awareness of the subject, gender, country of birth of the examinee, and country of birth of the parents of the examinee.

The differences in interest between the religious and the nonreligious soldiers were reflected in several aspects: willingness to sign a donor card (49% vs 35% respectively, P < .01; χ² = 7.65). The awareness that friends had signed cards also influenced willingness to sign (45% vs 38% respectively) as well as willingness to promote the subject of signing a donor card (36% vs 33%, respectively).

The differences between genders were reflected in the fact that the women soldiers, compared with the men soldiers, were more willing to help in promoting the subject of organ donation (51% vs 31%, respectively P < .01; χ² = 9.1), in signing a card (48% vs 41%, respectively), and of discussing the subject with family members (44% vs 28%, respectively).

DISCUSSION
During their army service, soldiers are exposed to life-endangering events. The influence of military service on the soldiers and their participation in combat operations have been examined in many studies.11,12 Israel, since its inception, has been in a perpetual state of war with some of its neighbors. Against this background, the question arises repeatedly as to whether soldiers in the regular army service are willing to discuss matters connected with death, and to make decisions to sign a donor card. The purpose of our study was to shed light on this important issue. Toward this goal, we conducted a preliminary survey in a number of army units involved in various levels of combat duty. It should be noted that this study is the first of its kind, and, therefore, it cannot be compared with others that might have been conducted on this sector of the population. Despite this, the findings are most encouraging and can be seen as a green light for us to continue to focus on the soldier population in Israel.

The study showed that large numbers of soldiers think that the subject of organ donation is important, 97% (n = 258), bearing witness to the fact that there is a high degree of awareness.13–15 However, we also know that there is a social aversion to dealing with this question, because, in practice, the numbers of those who sign donor cards are much lower.14,16

Only 9% of soldiers had signed donor cards before the lecture, and after the lecture, one third of the total group indicated that they would be willing to sign. In Israel, 3% of the general population have signed donor cards.17 This finding is not congruous with the suspicion that soldiers avoid confronting subjects linked to death and organ donation.

The factors that we found to affect willingness of soldiers to sign donor cards, were similar to those noted in the scientific literature. The variable of religion has been shown to be linked to willingness to sign a donor card. Soldiers who identified themselves as being religious, tended to show less interest to sign. Similar results were found in previous studies among religious and non-religious persons.13,14,18 Dgani who conducted a survey among the Jewish population in Israel, on the subject of public willingness to donate organs, also found that the Israeli public perceives religion as opposing donating organs.14 Soldiers who reported that they had discussed the subject with their families before the lecture or discussed the subject with their families after the lecture were both found to have a greater willingness to sign a donor card. Nolan and Spanos characterized the group who signed a card as those who had more contact with people possessing cards, knew more about organ donation, and had more discussions with their families about it.16 The studies of Nolan and Spanos and Perkins found that previous knowledge and awareness of the subject influences willingness to sign donor cards.16,19

Although the variable of gender was not found to be important to predict the willingness of a soldier to sign, women were more willing than men to sign themselves, to promote organ donation, to distribute explanatory material, and to recruit other people for the cards. On the one hand, Cleveland found that women tend to have a more positive attitude towards organ donation,20 on the other hand, Haskel failed to observe a difference between the genders.13 Since in the nature of things, women soldiers hold jobs in the army that expose them to less life-endangering situations, additional studies should be conducted to assess these gender differences in attitudes in connection to military service.

CONCLUSIONS
In the framework of army service there exists a great willingness to listen to material on the subject of organ donation, and even a greater willingness to sign donor cards. Transmitting information in lectures encourages individuals to sign donor cards. There is a need to study the connection between various degrees of exposure to life-threatening situations and the willingness to donate organs.

REFERENCES
4. Liblich A: Aviv Shnot. Tel Aviv: Shocken Press; 1987
8. Janis IL: Psychiatry 8:159, 1945
17. Israel National Transplant Center Statistics, 2000