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Attitudes Towards Euthanasia among University Students: A Sample Based on Turkish Population

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In Turkey, euthanasia has not become a subject of public debate and concern. This study gives the results of Turkish university students on attitudes to euthanasia. The main aims of the study were: to assess the impact of type of education on attitudes towards euthanasia and to determine the influence of socio-demographics on attitudes of the students towards euthanasia. In total, 878 volunteered undergraduate registered students with the mean age of 21.13±1.92 year from six universities were surveyed. Attitudes of the students towards euthanasia were determined using by a self-completed questionnaire. Response rate was 92.2%. The students were divided into two groups according to education program as follows: Health Science students (HS) and Liberal Arts and Business students (LAB).Two students major groups-Health Science (n = 421) and Liberal Arts and Business (n = 457), were compared. 48.4% of the students were positive to euthanasia. The socio-demographic factors, including mother's education level, family's socio-economic background, religious belief and religiosity were seen to be influenced on attitudes towards euthanasia among the overall students. No significant difference regarding the acceptance of euthanasia between the Health Science majors and the Liberal Arts and Business majors. Mainly, 40% of the Muslim students are opposed to euthanasia, whereas 86.7% of the atheist students are the most in favour of euthanasia. The religion was selected as the most important reason for being negative to euthanasia. The results showed that resistance to euthanasia is apparently associated with demographics and non-scientific reasoning among Turkish undergraduate students

Key words: Euthanasia, attitude, undergraduate students, health sciences, liberal arts, business

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INTRODUCTION

The debate over euthanasia has become increasingly active through western societies in recent years. Great technological advances in medicine during the last decades have made it possible to prolong the life considerably (Ryynänen *et al*., 2002). However; medicine has not always been able to guarantee a better quality of the life within this increased quantity of the life. There are a number of important ethical questions between length and quality of the life. One pressing question being debated world-wide concerns the ethical acceptability and desirability of legalizing euthanasia (Verpoort *et al*., 2004).

Many of the studies have been reported on the factors likely to influence the attitudes of patients, the public in general and health care providers and medical students towards euthanasia (Grassi *et al*., 2000; Muller *et al*., 1996; Ramirez-Rivera *et al*., 2000; Ryynänen *et al*., 2002; Siaw and Tan, 1996; Verport *et al*., 2004). However, there is limited data about the differences between health science students and other academic disciplines (Fekete *et al*., 2002; Schioldborg, 2000; Osvath *et al*., 2000). The purposes of the study were: (a) to determine the influence of socio-demographics on attitudes of undergraduate students towards euthanasia, (b) to compare the students' views in Health Science (HS) and Liberal Arts and Business (LAB).

MATERIALS AND METHODS

This study was carried out at Pamukkale University in Denizli, Turkey between January 2003 and December 2004. In total, 878 volunteered undergraduate registered students with the mean age of 21.13±1. 92 year from six universities in Turkey were surveyed in the study. All the universities are located in the middle and west part of Turkey. The students questioned were attending in medicine, physiotherapy, nursing, dentistry, pharmacy, economy-administration, fine arts, engineering, education, natural science, law and theology. The students were divided into two groups according to education program as follows: Health Science students (HS) group and Liberal Arts and Business students (LAB) group. HS group (n = 421) included students in studied at medicine (n = 173, 41.0%), physiotherapy (n = 145, 34.4%), dentistry (n = 54, 12.8%), pharmacy (n = 46, 10.9%), nursing (n = 3, 0.07%). The other group included students in studied at education sciences (n = 24, 5.2%), natural sciences (n=112, 24.5%), engineering (n = 13, 2.8%), fine art (n = 43, 9.4%), theology (n = 7, 1.5%), economy-administration (n=153, 33.4), law (n = 105, 22.9%). All the students gave their verbal consent to participate in the study. This was a cross-sectional and comparative study based on a Turkish sample.

The mean age of the students in LAB group (21.31±1.93 years) was a little higher than the students in HS group (20.92±1.88 years) ($p<0.01$). Our sample consists of 434 (49.4%) female and 444 (50.6%) male subjects. Eighty-six percent of the students defined their family's socio-economic background as middle class. There was no difference between the two groups concerning gender, education level of mother, socio-economic background of family and place of growing. On the other hand, a significant difference was found about father's educational level ($p<0.01$) and grade ($p<0.001$). 96.1% of the sample was Muslim. Two Jews and two Christians were in our sample and their data were excluded. Since majority of the sample are Muslim we did not compare the effect of religious on the attitudes towards euthanasia.

Questionnaire design: Attitudes of the students towards euthanasia were determined using by a self-completed questionnaire.

Data collection: Data collection was performed using face to face technique by ten final year physical therapy students. All the investigators were informed and trained about the study design and data collection procedures. The study was completed under supervision the authors of the study.

The questionnaires were distributed to participants at the end of the lecture during school time in the year 2004 and all participants filled in anonymously immediately after distribution. All those who agreed to answer the questions did so carefully.

Data analysis: The SPSS (version 13.0) statistical program for windows was used to calculate and to analyse the data obtained from the study. $p<0.05$ was deemed significant. The data were presented as mean±SD unless specified otherwise. General descriptive statistics were used to define the number and its percentage for each variable. Two-sample t-test was used to compare the mean age. The Chi-square test was used to look for differences between HS group and LAB group.

RESULTS AND DISCUSSION

Of the 948 undergraduate students from six universities in Turkey to whom the questionnaire was distributed, 878 (92.2%) completed the questionnaire. 48.4% of the sample in favour of euthanasia, whereas only 39% of them is against euthanasia. And only 2.6% of the students did not report any comment (i.e., they selected no comment as an answer) (Table 1).

The effect of socio-demographics: Some socio-demographics such as gender, grade, father's educational level, place of growing do not influence the students' acceptance of euthanasia ($p>0.05$) (Table1). Similar to Schioldborg (2000), Horsfall *et al.* (2001) and Loo (2004), in this study it was seen that gender has no effect on accepting of euthanasia among undergraduate students. In previous studies included students and other samples (doctor, general public etc.) have been reported that gender differences in relation to attitudes towards euthanasia are controversial (Horsfall *et al.*, 2001; Loo, 2004;Ryynänen *et al.*, 2002; Schioldborg, 2000).

Prsent results showed that the students who have mother with a higher level education were more likely to accept euthanasia than the students who have mother with low level. On the other hand, no difference was found with regard to the father's level of education (Table 1). This was an unexpected result for us. Indeed, a father has very important role in the Turkish family system as much as a mother. Thus, it needs future studies for explaining this result. We also found that of the socio-economic background influenced the students acceptance of euthanasia (Table 1).

The effect of religious: In this study, 86.7% of 30 Atheist students, although very little group, also had positive attitudes towards euthanasia. The majority students in our sample are Muslim (96.1) and 47.0% of them accepted euthanasia (Table 1). In studies of by Karnik *et al.* (2002) and Verport *et al.* (2004), the results showed that religion is an important predictor factor for accepting euthanasia. For instance; atheists were stronger supporters of euthanasia than those who were Christians or Jewish. Karnik *et al.* (2002) examined the attitudes of 248 undergraduate students studying on different programs, towards end-of-life issue and they found atheists were the most likely to accept euthanasia (63%) and Jewish respondents were the group least likely to accept euthanasia (28%). The attitudes of Christians were some where between those of atheist and Jewish students. The ratio of students who favour euthanasia are different from the results reported from European countries in addition to American countries. Hungarian (Fekete *et al.*, 2002), American (Horsfall *et al.*, 2001) and Canadian (Loo, 2004), Swedish (Gard and Sunden, 2003) students have higher positive attitudes towards euthanasia compared to Turkish students in our sample. Gard *et al.* (2005) compared life-views and ethical viewpoints among physiotherapy students from Sweden and Turkey and they reported that the Swedish students (76.0%) are more likely to accepted euthanasia than the Turkish students (32%).

The effect of religiosity: The early studies showed that the level of religious activity was the main factor to predict the negative attitudes towards euthanasia among different religions, including Christianity and Judaism (Ryynänen *et al.*, 2002; Karnik *et al.*, 2002). In this study, only 29.2% of the students who participate in religious activity regularly reported that euthanasia is an acceptable issue in patients with incurable diseases ($p<0.001$) (Table 1). Islamic point of view suggests that the life and the death are ultimately derived from God. Thus no human can give life or take death away (Yousif, 2002). In addition, persons who frequently use Quran as a guide in making daily decisions should be much more have negative attitudes towards kind of euthanasia. Indeed, Allah (God) alone is Master of Existence. He alone causes all that is to be or not to be. Causes are without effect of all process, including those which plant and animal species are individuated, are his work alone according to the Islamic point of view (Yousif, 2002).

The effect of education program: Previous studies including undergraduate students examined the effect of education program on attitudes towards euthanasia. Schioldborg (2000) reported that 61% of law students, 59% of psychology students and 24% of medical students supported euthanasia. Also Fekete *et al.* (2002) compared attitudes towards euthanasia among medical, social science students and nurses. Their results indicate that the majority of students sample favour (60%), particularly the social science students (76%). They concluded that social science students, who had the fewest personal experiences with terminal ill patients, are-theoretically-the most liberal group, characterised by the most permissive attitudes towards euthanasia and other study by Osvath *et al.* (2000) showed similar results. On the other hand, Karnik *et al.* (2002) reported that students, who studied nursing, were the most likely to support euthanasia compared to social science students (43%), natural science (52%) and humanities students (40%). Horsfall *et al.* (2001) recently examined the views of a heterogeneous sample of 287 students at Texas University. They found that almost three fourths (72-74%) of the favour of euthanasia and no differences among the Liberal Arts, Science and Business majors, although some differences and no were found within majors for the demographic variables, race and sex. Some of the studies carried out in Turkey revealed that 31% of students who studied in paramedical professionals and health technicians confirmed after the course about euthanasia that they were not against euthanasia (Özkara *et al.*, 2004).

In our study, it was seen that education program had no impact on students' acceptance of euthanasia ($p<0.05$)

Table 1: The percentage of respondents who accepted euthanasia or not and students reported no comment

Variables	Accepted euthanasia n (%)	Not accepted euthanasia n (%)	No comment n (%)	All over n (%)	χ^2	p-value
Number	425 (48.4)	342 (39.0)	111 (12.6)	878 (100)		
Gender						
Female	204 (47)	176 (40.6)	54 (12.4)	434 (49.4)		
Male	221 (49.8)	116 (37.4)	57 (12.8)	444 (50.6)	0.94	0.63
Grade						
1	126 (47.0)	107 (39.9)	35 (13.1)	268 (30.5)		
2	111 (50.2)	84 (38.0)	26 (11.8)	221 (25.2)		
3	94 (48.2)	74 (37.9)	27 (13.8)	195 (22.2)	1.68	0.99
4	77 (48.1)	65 (40.6)	18 (12.8)	160 (18.3)		
5-6	17 (51.5)	11 (33.3)	5 (16.7)	33 (3.8)		
Mother's educational level						
Illiterate	12 (48.0)	10 (40.0)	3 (12.0)	25 (2.8)		
Primary school	169 (43.3)	178 (45.6)	43 (11.0)	390 (44.4)		
Secondary school	39 (39.4)	48 (48.5)	12 (12.1)	99 (11.3)	32.85	0.000*
High school	94 (50.5)	66 (35.59)	26 (14.0)	186 (21.2)		
More	111 (62.4)	40 (22.5)	27 (15.2)	178 (20.3)		
Father's educational level						
Illiterate	2 (33.3)	4 (66.7)	0 (0.0)	6 (0.7)		
Primary school	107 (48.2)	88 (39.6)	27(12.8)	222 (25.3)		
Secondary school	48 (44.0)	44 (40.4)	17 (15.6)	109 (12.4)	15.46	0.51
High school	97 (43.3)	104 (46.4)	23 (10.3)	224 (25.59)		
More	171 (54.1)	101 (32.0)	44 (13.9)	316 (36.09)		
Family's socio-economic background						
Low	23 (57.2)	13 (32.5)	4 (10.0)	40 (4.6)		
Average	361 (47.3)	306 (40.1)	96 (12.6)	763 (86.9)	12.57	0.05*
High	41 (56.9)	22 (30.6)	9 (12.5)	72 (8.2)		
Very high	0 (0.0)	1 (33.3)	2 (66.7)	3 (0.3)		
Place of growing						
Big city	143 (54.4)	98 (37.8)	22 (8.4)	263 (30.0)		
City	144 (46.2)	125 (40.1)	43 (13.8)	312 (35.5)	9.59	0.14
Town	111 (44.6)	99 (39.8)	39 (15.7)	249 (28.4)		
Village	28 (51.9)	19 (35.2)	7 (13.0)	54 (6.2)		
Religion						
Muslim	397 (47.0)	338 (40.0)	109 (12.9)	844 (96.1)		
Atheist	26 (86.7)	2 (6.7)	2 (6.7)	30 (3.4)	19.22	0.004*
Others	2 (50.0)	2 (50.0)	0 (0.0)	4 (0.4)		
Participating in religious activity regularly						
Yes	31 (29.2)	64 (60.4)	11 (10.4)	106 (12.1)		
No	172 (61.6)	78 (28.0)	29 (10.4)	279 (31.8)	43.48	0.000*
Sometimes	222 (45.1)	199 (40.6)	71 (14.4)	492 (56.1)		
Type of education program						
Health science	192 (45.6)	178 (42.3)	51 (12.1)	421 (47.9)	4.06	0.13
Liberal arts and business	234 (51.2)	163 (35.7)	60 (13.1)	457 (52.1)		

* Significant difference ($p<0.05$); chi-square test was used to look the difference

(Table 1). On the other hand, some differences were found within the groups' views related to euthanasia (Table 2 and 3). No students in both groups, who accepted euthanasia in various conditions, reported that severe depression is not an acceptable condition for euthanasia. The students in the HS group reported that brain dead (42.7%), unconsciousness (21.6%), bedridden, (20.1%) and cancer (15.4%) were acceptable conditions for euthanasia. Likewise, the students in the LAB group reported that bedridden (36.3%), brain dead (25.2%), unconsciousness (23.0%) and cancer (15.3%) were acceptable conditions for euthanasia. As a striking remark of the just given results, the difference between the two groups was significant ($p<0.001$) (Table 2). More students in LAB group were positive to euthanasia for bedridden patients than students in HS group. Even though many patients become bedridden resulting from different diseases, the patients could be treated. Since HS students have more experience and knowledge for patients with terminal illnesses than the students in LAB, majority of HS group were not in favour of euthanasia for bedridden. In a study based on scenario was carried out in Finland showed that incurable cancer and severe mental retardation in the elderly were the most acceptable conditions, but severe depression was the least acceptable condition for euthanasia. And the results of the study also showed that passive euthanasia was largely accepted among Finnish medical professionals and general public (Ryynänen *et al*., 2002).

Table 2: Comparison of the opinions of the students who accepted euthanasia

Question	HS group (n = 194) n (%)	LAB group (n = 234) n (%)	All over (n = 428) n (%)	χ^2	p-value
Do you feel that there are certain circumstances that would make euthanasia acceptable?					
Bedridden	39 (20.1)	85 (36.3)	124 (29.0)		
Unconscious	42 (21.6)	54 (23.0)	96 (22.4)		
Cancer	30 (15.4)	36 (15.3)	66(15.4)	19.60	0.000*
Severe depression	0 (0.0)	0 (0.0)	0 (0.0)		
Brain dead	83 (42.7)	59 (25.2)	142 (33.2)		
Which type of euthanasia is acceptable for patients with incurable diseases?					
Passive	110 (56.7)	138 (58.9)	248 (57.9)		
Active-involuntary	28 (14.4)	28(11.9)	56.(13.1)	15.27	0.002*
Active-voluntary	33 (17.0)	17(7.2)	50(11.7)		
All types	23 (11.8)	51(21.2)	74 (17.3)		
Do you feel that euthanasia is acceptable for children with incurable diseases?					
Yes	57 (29.3)	69 (29.4)	126 (29.4)		
No	81 (41.7)	99 (42.3)	180 (42.0)	0.06	0.97
No comment	57 (29.3)	66 (28.2)	123 (28.7)		

*Significant difference ($p<0.05$); chi-square test was used to look the difference

Table 3: Distribution of the opinions of the students who rejected euthanasia

Question	HS group (n = 174) n (%)	LAB group (n = 163) n (%)	All over (n = 337) n (%)	χ^2	p-value
Why do you object to euthanasia?					
My religion	84 (48.2)	78 (47.8)	162 (48.1)		
I am not brave enough	7 (4.0)	9 (5.5)	16 (4.7)	19.84	0.000*
Will probably be medical developments	47 (27.0)	67 (41.1)	114 (33.8)		
Others	36(20.6)	9 (5.5)	45 (13.4)		
What makes you to be opposition to euthanasia?					
Conscience	20 (11.4)	47 (28.8)	67 (19.9)		
Tradition/culture	4 (2.2)	6 (3.6)	10 (3.0)		
Education	10 (5.7)	5 (3.0)	15 (4.5)	36.68	0.000*
Life view/religious belief	34 (19.5)	42 (25.7)	76 (22.6)		
Probable abuse	23 (13.2)	1 (0.6)	24 (7.1)		
All above	83 (47.7)	62 (38.0)	145 (43)		

*Significant difference ($p<0.05$); chi-square test was used to look the difference

In overall sample, the majority of the students (57.9%), who reported the positive view for euthanasia, supported-passive euthanasia (HS group: 56.7%; LAB group: 58.9%). 21.2% of LAB group reported that-all type euthanasia was acceptable, whilst HS group's percentage on that was 11.8. The difference between the groups was significant, as well (Table 2).

Both HS group and LAB group students reported that the most acceptable type of euthanasia (HS group: 56.7%; LAB group: 58.9%) was passive euthanasia. In our study, the students are least likely to accept active euthanasia. On the other hand, Horsfall *et al.* (2001) found between seventy-two and seventy-four percentages of the students at the university approve of both active and passive euthanasia.

In the question-Do you feel that euthanasia is acceptable for children with incurable diseases?, most students in both groups said-No (42.0%), whereas only 29.4% out of those said-Yes. And no difference was found between the groups concerning acceptance of euthanasia for children with incurable condition (Table 2).

In the current study, nearly half of the students who have negative attitudes towards euthanasia in both groups reported that euthanasia was a contradictory issue to their religious belief (Table 1). Similarly, religious belief has been shown an important reason for opposing to euthanasia among health science students in a study carried out in Turkey (Özkara *et al.*, 2004). Thus; we think that the strength of the current study is to give some information about the Muslim's attitudes towards euthanasia. Euthanasia has been still a neglected topic in Turkey. At the same time, since the majority of the students who interviewed in the current study were Muslim, we found that the less students who were in favour of euthanasia compared to students from different religions by reported previous studies. That's why; we think that these results show that Islam is a strongest factor affecting the decision making about euthanasia. Foremost, Islamic tradition teaches individuals and societies how to live a physically, mentally and morally upright life (Yousif, 2002).

In literature, there have been several studies investigating the effects of education program on students' opinions about euthanasia. Those that have been carried out emphasized that education is important for gaining insight into euthanasia and that curricula in medical schools should include courses on this issue (Muller *et al.*, 1996; Özkara *et al.*, 2004). Özkara *et al.* (2004) reported that health care students' opinions changed with education on this topic can be explained in

two ways: First, health care students may have false beliefs or information on euthanasia and consider it as murder or suicide. The second, the course on euthanasia might cause to develop some sort of empathy with patients.

We acknowledge the limitation of the present study. Majority of our sample is Muslim. Islamic belief absolutely to negative euthanasia and euthanasia type is not important factor. And also euthanasia is not a topic which is well known in general population and undergraduate students except doctors, nurses and several health providers in Turkey.

The present study indicates that undergraduate students in both HS and LAB majors have had different views related to euthanasia. However, the ratio of acceptance of euthanasia in both groups was more or less the same. The current study also indicates that some socio-demographics, including religious belief, religiosity, mothers' education level and socio-economic background are effective factors for accepting euthanasia among the students. In order to clearly show the effects of cultural and religion differences, further researches should be conducted.

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