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RESEARCH

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Students' attitudes toward euthanasia and abortion: a cross-cultural study in three Mediterranean countries

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Abstract

Introduction Abortion and euthanasia are still one of the greatest bioethical challenges. Previous studies have shown that there are differences in attitudes towards these issues depending on socio-demographic characteristics and socio-cultural environment (country of residence). As part of the scientific research project EuroBioMed, we compared the attitudes of students from three Mediterranean countries towards abortion and euthanasia and examined them from the perspective of Mediterranean bioethics.

Methods A pen-to-paper survey was conducted on a convenient sample of students ($N=1097$) from five universities and four fields of study (Medicine, Law, Theology and Philosophy) in Croatia, Greece and Italy to investigate their attitudes towards abortion and euthanasia. Three hypotheses were tested using t-test and ANOVA for differences in attitudes according to country, field of study, year of study, gender, religiosity, political orientation, financial status, and size of place of residence.

Results While attitudes towards abortion were not statistically significantly different between students from different countries, the analysis showed that students from Italy had more liberal attitudes towards euthanasia. Theology students had more conservative attitudes towards both abortion and euthanasia, while there were no differences between the other groups. Women, final year students, non-religious and politically left-oriented students had more liberal attitudes.

Conclusion The results provided an insight into students' attitudes towards abortion and euthanasia. Knowledge of the attitudes of these future experts can be valuable for the discussion of these issues. These results also provided a basis for a better understanding of the construct of Mediterranean bioethics.

Keywords Abortion, Euthanasia, Questions about the beginning and end of life, Bioethics, Mediterranean bioethics, Students, Croatia, Italy, Greece, Healthcare, Public health

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Introduction

Questions of the beginning and end of life, such as abortion and euthanasia, remain one of the greatest bioethical challenges. These issues are further complicated by the fact that decisions about the beginning and end of life are not made in a vacuum, but are influenced by a range of medical, ethical, socio-cultural, political, and economic factors. We therefore need to reflect on the factors that influence decisions and attitudes to these issues, i.e. the reasons that underlie them.

There are several reasons for recognizing abortion as one of the most difficult problems in bioethics. First, the debate on abortion involves not only scientists and medical professionals, but also many other actors and interest groups such as religious organizations, politicians and policy makers, courts, and the general public – almost everyone has an opinion on the issue. Secondly, extreme positions are often taken, from an absolute ban on abortion on the one hand to an absolute right to abortion at any point during pregnancy on the other. Thirdly, and very importantly, much of the opposition to abortion is based on religious beliefs that cannot be refuted by scientific and medical arguments alone. Fourth and finally, the fetus is very special in terms of moral considerations: it stands in a unique relationship to the pregnant woman and its status as a person is unclear, to mention only the most important points [1]. In addition, terms such as "embryo" or "fetus" are often used imprecisely in the discussion, sometimes even intentionally and deliberately to influence the conclusion in favor of the opinion of the discussant, although their meaning and use are defined in official manuals and textbooks [2]. The debate on abortion encompasses many issues, starting with the question of whether women have the right to terminate an unwanted pregnancy and under what circumstances – completely or with restrictions. Furthermore, it is questionable whether the issue of abortion is a matter of law or morality and whether abortion can be legalized if its legality is morally reprehensible to some groups.

The medical perspective can only partially contribute to the understanding of the abortion issue. This perspective is extremely important in addressing following questions: (1) Does the medical information about abortion confirm that it is safe for the woman? (2) Is early abortion more acceptable from a medical perspective than late abortion? (3) How can abortion be viewed from a public health perspective, i.e. from an international perspective?

Philosophy (especially ethics), law, sociology, theology and religion are the most important fields for discussing this issue. Philosophy focuses primarily on ethical considerations and implications of the question of the status of the fetus: does the fetus have a morally relevant interest, is the fetus a person with rights like any other adult or, even if the fetus is not a person, do we have a moral responsibility towards it if we have not conceived it without consent [1, 3, 4]? ? It should be noted that at the heart of the abortion debate, in addition to the aforementioned moral status of the fetus, is the question of whether, and to what extent, pregnancy affects the moral status of women in general, particularly from the point of view of their right to self-determination. E. D. Protopapadakis discusses this in detail in his book *From Dawn till Dusk Bioethical (Insights into the Beginning and the End of Life)*, especially in the chapter "Defending Abortion Against the Right to Life" [5].

The legal debate (law) on the problem of abortion is basically about the conflict of rights: Whose rights take precedence, those of the mother or those of the fetus? This question often ignores the status of the fetus: whether the fetus is a person or not, i.e. whether it is a potential person [3, 6][1].

As mentioned above, the religious perspective, which includes both theology as a theoretical background and religion as a religious practice[2], is particularly strong in the abortion debate. Each religion has a clear theoretical standpoint trying to give a strict and determined answer about the nature of fetus, and the exact point when we can consider it to become a person with related rights (e.g. to live) and duties (e.g. to be respected as a dignified being). Religious perspective also tries to give a clear model for societal responses, and proposed normative (moral) guidelines in situations related to abortion (e.g. defining and giving justifications for exceptions such as doctrine of double effect in Christian moral theology) [11–16].

As for the other socio-demographic characteristics that contribute to more positive attitudes towards abortion, previous research [15–18] shows that women, people on the left side of the political spectrum, educated, employed, or divorced people are more inclined to support legal abortion. The age-related results are contradictory. In the Ipsos survey [17], older people belonging to the baby boomer generation showed more support for abortion (compared to millennials and Gen Z). According to a study by Loll and Stidham Hall [18], younger people expressed more positive attitudes.

The characteristics of the society in which the individual lives, more specifically the gross domestic product (GDP) and the legal regulation of abortion, also influence attitudes towards abortion. In countries with a lower GDP, residents tend to be more religious, which leads them to have more negative attitudes towards abortion

[1] It is interesting to note that examples from different legal practices point to a similar legal methodology for approaching the problem of abortion [3, 6], with the laws in certain countries such as Croatia serving as a model [7, 8].

[2] Theology and religion could be seen as one perspective, as they are often taken together as theoretical background (theology) for religious practice (religion) in the argumentation on abortion issues [9, 10].

[16]. In addition, residents of countries with more restrictive policies had less positive attitudes towards abortion than residents in less restrictive contexts [18].

The debate over euthanasia is equally challenging. Muzur [19, p. 227] writes:

In the euthanasia debate, that is, the debate on the right of a person to choose death and of a healthcare worker to help the realization of such a choice, respectively, there is no *crucial argument*. The debate has been particularly vivid for the last few decades and it certainly will remain so for many more decades, as long as no answer has been spotted to the question of defining death and its limits. Although many countries either keep avoiding public discussion or oppose the legalization of euthanasia, the global trend is obvious: almost every year, one or more countries join the *club* allowing the possibility of, mostly, assisted suicide.

There is a steep trend of legalization of euthanasia all over the world (since 2002, the Netherlands, Belgium, Luxemburg, Canada, Spain, etc.), even if the eligibility varies from one countrry to the other (direct active, indirect active = medically-assisted, passive). Even if they differ in attitude toward euthanasia, most of religions condemn it (Christianity, Islam, Judaism), with the Church of England being more open to passive euthanasia. Partly based on religious morality, but also independently of it, ethical stand on euthanasia has always been complex and could have favoured one of the three approaches: the sanctity of life, the quality of life, and the freedom of individual choice.

However, the question that dominates the euthanasia debate is not only: if voluntary active euthanasia and physician-assisted suicide were legalized, could they be effectively controlled by law? When we think about the issue of euthanasia, not only do our personal experiences come to light, but the values we adhere to because of our religion, upbringing, education or social influence become even clearer. As with abortion, education and political affiliation have an influence on attitudes towards euthanasia, such that people with a higher level of education and income [20] and people with a more liberal and secular worldview (politically left-oriented) [21–23] have more positive attitudes towards euthanasia.

In addition, age, socioeconomic status, place of residence, and social and institutional trust are specific factors in the formation of euthanasia attitudes in the sense that older people, people with a lower socioeconomic status, people living in smaller cities/rural areas, and people expressing less social and institutional trust have more negative attitudes towards euthanasia [20, 21]. All these characteristics may indicate a person's vulnerability, so that the cause of reluctance to euthanasia may be fear of abuse of this procedure. Regarding gender differences, previous research shows contradictory results – either that there are no gender differences in attitudes towards euthanasia, or that women are more likely to have negative attitudes [20, 24].

However, when we talk about attitudes towards abortion and euthanasia, religiosity has undoubtedly been shown to be a key factor in shaping these attitudes in general and among residents of European countries [15, 21, 23–25]. There is also an ideological consistency – people who have negative attitudes towards abortion also have negative attitudes towards euthanasia and vice versa. Ideological consistency is also evident in the fact that views on abortion and euthanasia are reflected in views on artificial insemination, divorce and same-sex orientation [20, 24, 25].

An overview of attitudes to questions about the beginning and end of life in the Mediterranean countries

Although Europe is ahead of other parts of the world in terms of openness towards bioethical issues such as abortion [17], there are differences within Europe. Among European countries, Scandinavian, Central, and Western European countries show greater support for abortion rights and euthanasia [16, 21, 24], which can be explained by the secularization process in recent decades [24]. It is interesting to note that Spain is another country where support is more pronounced, although it belongs to Southern Europe [24].

On the other hand, the former communist countries show a negative attitude towards abortion and euthanasia, which is explained by the strengthening of religion after the fall of communism [24]. There are two notable exceptions: Portugal, which is closer to the attitudes of former communist countries, and Slovenia, which is closer to Western European countries. What is interesting in the context of our study, however, is that in the period between 1999 and 2008, support for euthanasia increased in several countries, including several Mediterranean countries – Spain, Portugal, the UK, Germany and Italy. At the same time, the largest decreases in support for euthanasia were recorded in the Russian Federation, Ukraine, Greece, the Slovak Republic and Belarus [21, 24].

If we focus on the Mediterranean countries, we find that France is in the lead with 84% of those in favour of the right to abortion, followed by Italy, Greece, and Spain with 80%, 77% and 74% of respondents sharing this view, respectively [16]. We can conclude that the Mediterranean countries show similarities in these attitudes. Furthermore, in the context of this study, we were interested in whether there is some continuity in attitudes towards abortion and euthanasia in the Mediterranean region.

Previous research on attitudes towards abortion and euthanasia has shown that there are similarities between Mediterranean countries such as Greece and Italy due to

a similar cultural background. It is precisely because of this Mediterranean hinterland that Croatia was included in the EuroBioMed project as an example of a Mediterranean country, although it also belongs to the group of Southeast European and Central European countries. We were interested to see whether our research would also reveal similarities between these Mediterranean countries.

But is the undeniable diversity of the Mediterranean region an advantage or a curse? A safer answer might be: it is its destiny. On the one hand, thanks to its religious, cultural and political diversity, the basin has experienced the high points of several advanced civilizations, such as the Hebrew, Egyptian, Greek, Hellenistic, Roman, Islamic or Renaissance. On the other hand, the same area has also witnessed the destruction of most of these civilizations through regular collisions of enormous, often intercontinental, scale.

What does this mean for bioethics? As the cradle of Hippocratic ethics and the rich heritage of Greek philosophy in general, but also of Greco-Roman Stoicism and the Christian doctrine of love and forgiveness, it is not surprising that the Mediterranean region has produced its own version of bioethics, quite different from the Anglo-American one and based on autonomy and other values less important to the Mediterranean tradition. Not always "Mediterraneans" themselves, Albert Camus, Alasdair MacIntyre, Diego Gracia Guillén and Salvatore Privitera [26–29], but also Menico Torchio [as cited in 30], Jürgen Mittelstraß [31], Ante Čović [32] and other thinkers have created an intriguing common platform and "preparation" for a "Mediterranean Bioethics,", even if they do not always share the same common theoretical goal.[3]

But are these scattered ideas sufficient to provide a framework that does justice to both the explanatory and practical challenges of modern bioethics? Are modern university students, at least in Euro-Mediterranean countries such as Italy, Croatia and Greece, close enough in their attitudes, do they share values that are essential for solving bioethical problems such as abortion and euthanasia? This study, which is part of the broader project „EuroBioMed – From Diversity of Traditions to a Common Euro-Mediterranean Bioethical Platform – Constructing a Tool for Dialogue and Action", carried out in three European Mediterranean countries in 2021–2024, is an attempt to answer these questions.

As mentioned in the first part of the introduction, medical professionals, philosophers, lawyers and theologians are the main professional groups that should be involved in the debate on these bioethical issues – and those who should be involved in research on these topics. Besides medical students / future doctors, future experts in these humanities and social sciences are key to understanding the nature, complexity and profound cultural (especially religious, but also political, etc.) influences on the abortion and euthanasia debate in different societies and especially in different cultures in Europe by adopting their respective professional perspectives. In addition, their curricula often include a variety of courses that shape their views on different (bio)ethical issues, even if these courses are usually based on different theoretical foundations.

Aims and hypotheses

Our aim was to investigate attitudes towards abortion and euthanasia among students in five cities in three Euro-Mediterranean countries (Messina, Italy; Rijeka, Split, and Zagreb, Croatia; Thessaloniki, Greece) in order to identify the similarities and differences between Euro-Mediterranean cultures in relation to human health, the environment, animals and plants. Based on previous research, we also wanted to determine what factors influence these attitudes. Therefore, we examined the following socio-demographic characteristics: Country, field of study, year of study, gender, religiosity, political orientation, size of place of residence and financial situation. For this reason, we included two groups, 1st to 3rd year students and 4th to 6th year students, with the idea that if statistically significant differences are found depending on the year of study, the final year students have been professionally socialized longer into their professions dealing with these bioethical issues and have stronger attitudes than when they started their studies.

There are three hypotheses that are tested in this paper:

H1 – There will be no differences between Croatia, Italy and Greece in their attitudes towards abortion and euthanasia.

H2 – Theology students will have more conservative attitudes towards abortion and euthanasia than students of Medicine, Philosophy and Law.

H3 – Women, final year students, non-religious, politically left-oriented, people from larger cities and with better financial status will have more liberal attitudes towards abortion and euthanasia.

Methods

Design and sampling

The study was based on a quantitative approach using the survey method. The survey was conducted between December 2022 and June 2023 on a convenient sample of 1097 undergraduate and graduate students from five fields of study (Law, Philosophy, Medicine, Theology) in three Mediterranean countries (Croatia, Greece and Italy). In all countries, the pen-to-paper method was

[3] See more on the concept of Mediterranean bioethics in Muzur and Rinčić [33].

used. After the approval of the faculty administration, teaching staff were contacted and a data collection date was agreed upon. The questionnaires were filled out with „pen to paper" and administered in person during class with prior permission from the lecturer. Either one of the project team members or member of teaching staff (who was given instructions for data collection) was present during data collection. In one institution, student representatives organized the filling out of survey. None of the questions were compulsory and respondents could withdraw at any time. The questionnaires had a standardized version in each country and were administered in English [4]. The complete survey can be found in Supplimentary file 1 and detailed information on creation and modification of specific instruments used in this study are stated in the subchapter Instruments. Uncompleted questionnaires were not analyzed. Missing responses were computed as missing values and the Missing listwise method was used in the analysis of the main components to check the dimensionality of the measurement instruments, (all cases that did not contain complete responses for the variables used were excluded from the analysis)

Table 1 Sample description

Variable		Croatia *N* = 656	Italy *N* = 254	Greece *N* = 187	Total *N* = 1097
Age M (SD) [range]		23.06 (4.27) [19–68]	23.99 (3.29) [19–45]	25.62 (7.73) [19–74]	23.71 (4.95) [19–74]
Gender %	M	36.6†	44.8	48.0	40.4
	F	63.4	55.2	52.0	59.6
Field of study %	Law	48.2	33.9	0	36.6
	Medicine	19.1	33.5	63.6	30.6
	Theology	17.2	11.4	36.4	12.9
	Philosophy	15.5	21.3	0	20.4
Year of study %	1st -3rd	55.2	45.2	25.8	47.9
	4th -6th	44.8	54.8	74.2	52.1
Religiosity %	Believer	62.2	61.7	65.9	62.7
	Indifferent	15.3	14.9	13.9	14.9
	Non-believer	22.6	23.4	20.2	22.3
Political orientation %	Left	23.5	50.3	28.5	29.4
	Centre	27.5	17.6	29.7	26.1
	Right	20.7	17	15.8	19.1
	Not Interested	28.3	15.1	25.9	25.4
Size of place of residence %	Small	41.0	39.3	26.3	38.0
	Medium	23.9	26.2	29.1	25.4
	Large	35.1	34.5	44.6	36.6
Financial situation %	Weaker	9.3	9.9	9.9	9.5
	As others	48.5	55.3	48.8	49.7
	Better	42.2	34.9	41.4	40.7

Note M = mean, SD = standard deviation. † Valid percentages

[4] With the one exception of one Italian university, which is described in the limitatons section.

The majority of students (Table 1) came from Croatia (59.8%), were women (59.6%), studied law students (36.6%), were religious (62.7%), politically left-oriented (29.4%), came from small towns (38.0%) and had an average financial status (49.7%).

After the end of the collection period, the surveys were manually entered into an SPSS database. The first step of the statistical analysis, after descriptive statistics, was the application of Principal Component Analysis (PCA) to reduce the dimensionality of the data set while retaining the most relevant information. Before further analyses were carried out, the scales were tested for reliability using Cronbach's Alpha. Hypotheses 1, 2 and 3 were tested using the independent sample t-test and analysis of variance (One-Way ANOVA) to determine differences between means. Statistical analyses were performed using SPSS version 25.0 and JASP.

Instruments

The survey comprised several instruments on various bioethical topics and ten items on the socio-demographic characteristics of the participants: country, field of study, year of study, age, gender, religiosity, political orientation, size of place of residence and financial situation. Religiosity was assessed using an item on self-assessment of religion with 5 options (1 – convinced believer, 2 – no different from other believers, 3 – indifferent, 4 – non-believer, 5 – convinced opponent of religion) and recoded for further analysis as "Believer" (1 and 2), 3 remained "Indifferent" and 4 and 5 were recoded as "Non-believer". The items on political orientation contained six options and were recoded into four categories (Extreme Left and Left were recoded to "Left" and Extreme Right and Right were recoded to "Right", while "Centre" and "Not Interested" remained as separate categories). Participants were asked to rate their family's financial situation in relation to other families on a scale with 5 options (1 – considerably weaker than most others, 5 – significantly better than most others; in further analysis, options 1 and 2 were combined to "Weaker than others" and 4 and 5 were combined to "Better than others"). The item on the size of the place of residence was recoded into three categories: small places (residence with up to 20,000 inhabitants), medium-sized places (20,000-100,000 inhabitants) and larger places (more than 100,000 inhabitants). The socio-demographic variables serve as independent variables in the analyses.

The scale for measuring attitudes towards abortion, which was developed by Cifrić and Marinović Jerolimov [34], was translated from Croatian into English with some modifications and consists of 10 items (5 items on justification of abortion for health, moral, financial, family planning or women-specific reasons, one item stating that abortion should not be regulated by law and 4 items

on the prohibition of abortion for moral-theological, individual-health and national-demographic reasons). Since the original item on the moral-theological argument "Abortion should be banned because it is a crime and severe moral disorder" was ambiguous, it was split into two items. Two additional items were added to the instrument: "Religious communities have the right to make moral judgement on abortion" and "A doctor has the right to make a conscientious objection with regard to preforming abortion". These two items were added because of two additional arguments that have emerged in the media and in public discourse: the question of whether or not doctors should have the right to so-called "conscientious objection" and the greater role that some religious communities are demanding in terms of involvement in this decision. Ultimately, the instrument consisted of 13 items containing arguments in favor of allowing and banning abortions. Agreement with the items was assessed using a 5-point-Likert-type scale (1 – strongly disagree, 5 – strongly agree).

A PCA analysis was performed to reduce the dimensionality of the instruments. The appropriateness of the PCA was assessed using the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity prior to conducting the analysis. The KMO measure was 0.93 and the Bartlett's Test was statically significant ($p < 0.001$). Initially, all 13 items were included in the analysis, but three items were removed during the process: the items "Abortion should be allowed as a means of birth control" and "Abortion should be banned when it endangers a woman's life" due to very weak correlations with other variables ($r < 0.3$) and the item "Abortion should not be regulated by law" due to low extraction (0.177). Removing these three variables resulted in a one-component solution (according to the GT criteria, there was only one component with an eigenvalue above 1, C = 6.720), which explained 67.2% of the total variance. The reliability tests for the retained 10 items yielded a very high Cronbach's Alpha ($\alpha = 0.944$), with no indication that removing additional variables would increase the value. The component was saved using the regression method and is the first dependent variable in this survey labeled "Attitudes towards abortion".

The instrument measuring attitudes towards euthanasia consisted of 9 items. Five items on the prohibition of active euthanasia, the regulation of passive euthanasia, the right of the dying patient to decide on the end of their life, the duty of doctors to help dying patients, and the belief that one has the right to decide on their death were created by Cifrić and Nikodem [35] and translated from Croatian into English for the purposes of this survey. Four additional items were added, dealing with voluntary euthanasia, the right of minors to decide on the end of their lives, respect for religious preferences, and the view that serious and terminal illness is not a sufficient reason for euthanasia. Since the original instrument did not include some of these arguments that appear in the existing scientific literature and public discourse on euthanasia, they were operationalized in these additional items and added to this instrument. Agreement with the items was assessed using a 5-point-Likert-type scale (1 – strongly disagree, 5 – strongly agree).

To reduce the dimensionality of the euthanasia attitudes instrument, a PCA was performed in which the criteria of KMO (which was 0.94) and statistically significant Bartlett's Test of Sphericity ($p < 0.001$) were met. Originally, 9 items were included in the analysis, but the item "A patient's religious preferences regarding treatment related to death or prolongation of life should be absolutely respected even when they conflict with a doctor's recommendations" was removed from the model due to weak correlations with other items. The PCA yielded a one-component solution (eigenvalue C = 5.244) that explained 66.55% of the total variance. The test of reliability using Cronbach's Alpha, showed excellent reliability, $\alpha = 0.924$, with no possibility of further improvement in scale reliability by removing additional variables. The component was saved using the regression method and named "Attitudes towards euthanasia" and is the second dependent variable in the analysis.

Ethical consideration

The research was conducted in accordance with the Declaration of Helsinki and approved by the Ethics committee for Biomedical Research at the Faculty of Medicine of the University of Rijeka on September 27, 2022 (class: 007–08/22 – 01/61, issue number: 2170-24-04-3/1-22-7). Respondents were informed about the research aim and the ethical aspects of the research (anonymity and voluntary participation, with the possibility of withdrawing from the research) in written form at the beginning of the survey. Informed consent was obtained from all of the participants. Participants gave implied consent by filling out the survey.

Results

Attitudes towards abortion

The dependent variable "Attitudes towards abortion" is standardized (M = 0.00, SD = 1.00, min-max [-1.994, 1.241]) and higher values indicate a positive attitude towards abortion. The percentages and descriptive statistics of the individual items are shown in Table 2. The results are similar to the first test of the scale [34]: The item with the highest level of agreement in each survey was that abortion is a woman's decision and that it should be allowed in cases of severe fetal harm (M = 3.71). More than 60% of our participants disagreed with the items prohibiting abortion because it is the killing of an

Table 2 Descriptive statistics for items regarding attitudes of abortion

Item	Disagreement		Unsure	Agreement		Descriptive statistics	
	1 %	2 %	3 %	4 %	5 %	M	SD
Abortion should be allowed as a woman's choice.	18.4	6.9	8.1	17.8	48.8	3.71	1.558
Abortion should be allowed in cases of severe damage to the fetus.	10.0	12.8	13.1	24.6	39.5	3.71	1.363
A doctor has the right to make a conscientious objection with regard to performing abortion. (R)	16.1	14.1	21.8	24.7	23.2	3.25	1.380
Abortion should be allowed if the financial situation of a family is extremely poor.	20.4	16.8	15.1	20.8	26.9	3.17	1.497
Abortion should be allowed when a woman is not married.	25.0	17.3	12.6	17.6	27.6	3.06	1.566
†Abortion should be banned when it endangers a woman's life. (R)	21.7	13.2	24.6	21.2	19.3	3.03	1.409
Abortion should be allowed when a married couple does not want to have more children.	29.4	12.3	13.8	19.2	25.3	2.99	1.583
Religious communities have the right to make a moral judgment on abortion. (R)	36.8	15.3	13.4	16.4	18.1	2.64	1.545
†Abortion should be allowed as a means of birth control.	31.6	20.0	17.9	15.7	14.7	2.62	1.438
†Abortion should not be regulated by law.	28.1	29.8	16.4	12.1	13.5	2.53	1.366
Abortion should be banned because it is the intentional killing of an innocent human being. (R)	44.5	18.6	8.5	6.4	21.5	2.42	1.603
Abortion should be banned by law because it is a crime. (R)	52.2	16.0	9.0	5.8	16.9	2.19	1.529
Abortion should be banned by law because it threatens the demographic survival of the nation. (R)	51.8	18.8	11.3	6.7	11.6	2.07	1.390

Note M = mean, SD = standard deviation. The items were listed in descending order of the mean values. Items with (R) were included in the analyses so that higher scores represent agreement with the justification of abortion. Items marked with † were removed from the final component solution

Table 3 Descriptive statistics of items regarding justification of euthanasia

Item	Disagreement		Unsure	Agreement		Descriptive statistics	
	1 %	2 %	3 %	4 %	5 %	M	SD
A terminally ill patient has the right to decide on the end of their life.	9.8	8.5	12.0	34.6	35.1	3.77	1.280
†A patient's religious preferences regarding treatment related to death or prolongation of life should be absolutely respected even when they conflict with a doctor's recommendations. (R)	5.8	11.1	24.3	39.3	19.4	3.56	1.098
Voluntary euthanasia (at the request of a terminally ill patient who is capable of making an independent decision) should be made possible by doctors to anyone who wants it.	13.2	16.6	12.3	32.7	25.2	3.40	1.368
A doctor is obliged to help a terminally ill patient to fulfil their wish to die.	14.7	20.9	21.4	24.7	18.3	3.11	1.328
Passive euthanasia (letting a sick patient die due to lack of treatment, failure to resuscitate, turning off a device, stopping treatment, etc.) should be allowed but with legal regulation to prevent abuse.	14.0	22.8	19.7	31.1	12.3	3.05	1.260
A terminally ill minor should be able to make the final decision about the end of their life.	22.8	19.1	26.9	21.8	9.4	2.76	1.280
Severe and terminal illness is not sufficient reason to allow euthanasia. (R)	24.7	29.3	18.0	16.7	11.4	2.61	1.322
Euthanasia in any form should be absolutely banned by law. (R)	32.6	28.2	11.8	7.7	19.6	2.54	1.495
No one, not even the individual themselves, has the right to decide the moment of their death	30.1	29.5	13.3	14.7	12.5	2.50	1.376

Note M = mean, SD = standard deviation. The items were listed in descending order of the mean values. Items with (R) were included in the analyses so that higher scores represent agreement with the justification of euthanasia. Item marked with † was removed from the final component solution

innocent being (63.1%), a crime (68.2%), or a threat to the survival of the population (70.6%). These were also the items with the highest disagreement (over 50%) in Cifrić and Marinović Jerolimov [34].

Attitudes towards euthanasia

The second dependent variable, "Attitudes towards euthanasia", was also standardized (M = 0.00, SD = 1.00, min-max [-2.135, 1.537]), with higher values representing a positive attitude towards euthanasia. The percentage agreement with each individual item and the descriptive statistics are shown in Table 3. It is noticeable that the majority of our participants agreed with the items favoring autonomy in end-of-life decisions (69.7%) and the availability of voluntary euthanasia (57.9%). In addition, around 60% of participants in our study disagreed with the items relating to the prohibition of euthanasia (70.8%) and that no one has the right to decide their own death (59.6%). These results are very similar to those of the original creators of the scale [35], with the exception that in their survey agreement with the item "No one, not

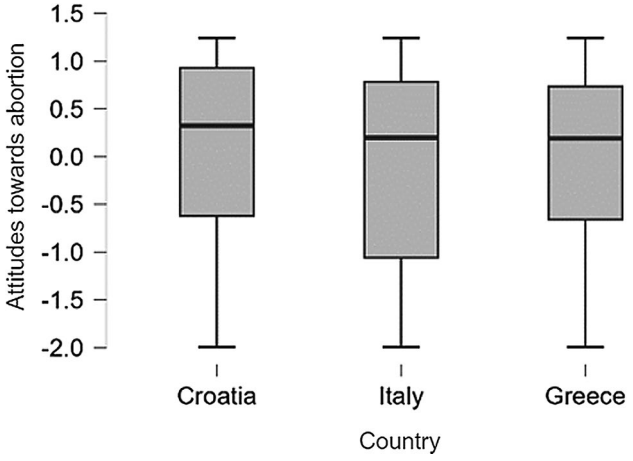

Fig. 1 Attitudes towards abortion by country

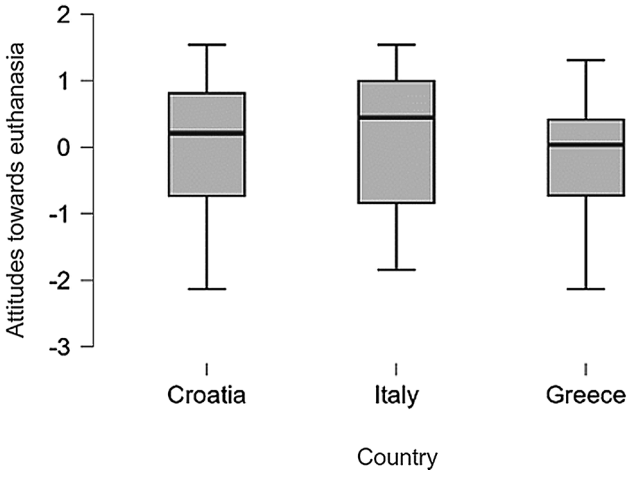

Fig. 2 Attitudes towards euthanasia by country

even the individual themselves, has the right to decide the moment of their death" was slightly higher (31.6%).

Hypothesis testing

A One-Way ANOVA confirmed H1 that there were no differences between students from different countries in attitudes towards abortion (Welch's $F(2,1007) = 1.493$, $p = 0.226$), but there were statistically significant differences in attitudes towards euthanasia (Welch's $F(2,434.02) = 9.471$, $\omega^2 = 0.013$, $p < 0.001$). The Post Hoc Games-Howell comparison showed that there were statistically significant differences between students from Croatia and Italy (-0.227, $p = 0.006$) and Greece and Italy (-0.376, $p < 0.001$), but no differences between Croatian and Greek students (0.148, $p = 0.127$). The boxplots in Figs. 1 and 2 also show that the mean scores for all three countries are very similar in relation to abortion, while Italy has a slightly higher mean score in relation to attitudes towards euthanasia.

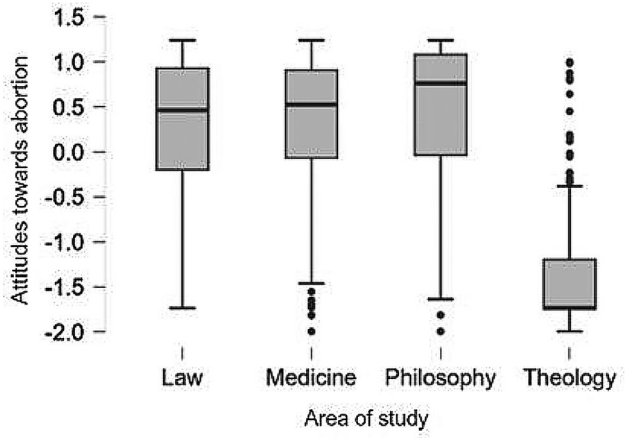

Fig. 3 Attitudes towards abortion by field of study

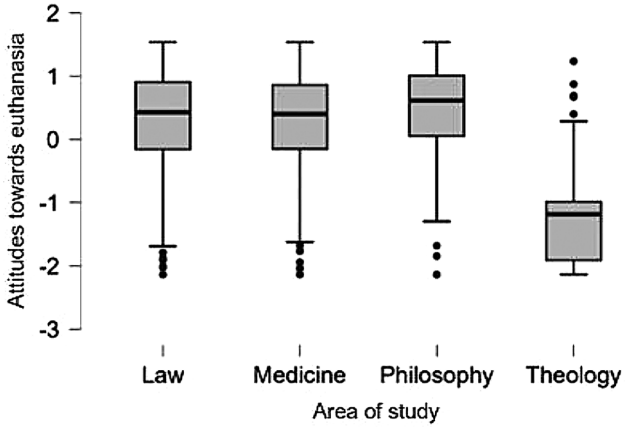

Fig. 4 Attitudes towards euthanasia by field of study

A One-way ANOVA was conducted to determine whether participant's attitudes towards abortion differed by the field of study[5] (H2). It was found that there were statistically significant differences between the groups in terms of attitudes towards abortion (Welch's $F(3,994) = 295.7$, $\omega^2 = 0.047$, $p < 0.001$) and euthanasia (Welch's $F(3,273,487) = 273.5$, $\omega^2 = 0.411$, $p < 0.001$). Theology students (M=-1.39, SD = 0.66) had statistically significantly lower mean scores ($p < 0.001$ in all three group comparisons) on attitudes towards abortion compared to Medicine (M = 0.35, SD = 0.69), Law (M = 0.28, SD = 0.77) and Philosophy students (M = 0.46, SD = 0.79), as well as in relation to euthanasia (Theology M=-1.26, SD = 0.71; Medicine M = 0.30, SD = 0.73; Law M = 0.30, SD = 0.82; Philosophy M = 0.42, SD = 0.80) and there were no statically significant differences between Medicine, Law and Philosophy in either analysis. The clear difference in the mean values between Theology and the other groups can be seen in the boxplots in Figs. 3 and 4.

[5] It should be noted that the Greek subsample does not include students from law and philosophy fields.

Table 4 Games-Howell Post Hoc comparisons on attitudes towards abortion according to political orientation

Comparison	Mean difference	SE	T	df	p_{tukey}
Left - Centre	0.525	0.073	7.179	342.790	< 0.001***
Left - Right	1.358	0.087	15.640	228.979	< 0.001***
Left - Not interested	0.605	0.076	8.001	321.760	< 0.001***
Centre - Right	0.833	0.099	8.403	310.549	< 0.001***
Centre - Not interested	0.080	0.089	0.896	389.372	0.807
Right - Not interested	-0.753	0.101	-7.454	316.086	< 0.001***

*** $p < 0.001$

Note. Results based on uncorrected means

Table 5 Games-Howell Post Hoc comparisons on attitudes towards euthanasia according to political orientation

Comparison	Mean difference	SE	T	df	p_{tukey}
Left - Centre	0.595	0.075	7.906	389.123	< 0.001***
Left - Right	1.331	0.101	13.233	225.948	< 0.001***
Left - Not interested	0.711	0.079	8.965	361.313	< 0.001***
Centre - Right	0.736	0.110	6.688	288.423	< 0.001***
Centre - Not interested	0.116	0.091	1.277	416.595	0.578
Right - Not interested	-0.619	0.113	-5.491	303.014	< 0.001***

*** $p < 0.001$

Note. Results based on uncorrected means

To test H3 that women, final year students, non-religious, politically left-oriented, people from larger cities and with better financial status have more liberal attitudes towards abortion and euthanasia, the independent samples T-test and the One-Way ANOVA were used. The independent samples T-test revealed a statistically significant difference (t(964)=-10.79, $p < 0.001$) between men and women, with women scoring 0.696 (± 0.06, CI [0.57–0.82]) higher than men in attitudes towards abortion, and final year students (t(967)=-3.43, $p < 0.001$) scoring 0.22 (± 0.06, CI [0.96 – 0.35]) higher than first year students. There was a statistically significant difference between all groups according to their religiosity in relation to abortion attitudes (Welch's F(2.386) = 1.717, ω^2= 0.0279, $p < 0.001$), and the Games-Howel Post Hoc comparison revealed that there was a statistically significant ($p < 0.001$) mean difference between all groups: Believer-Indifferent (-0.934), Believer-Nonbeliever (-1.212) and Indifferent-Nonbeliever (-0.227). There were also statistically significant differences between the groups according to political orientation (Welch's F(3,389.11) = 90.16, ω^2=0.0241, $p < 0.001$). Students who identified themselves as being politically right-oriented had the lowest agreement with abortion (M = 0.72, SD = 0.96) (see Table 4).

In addition, there was a statistically significant difference according to the size of the place of residence where participants spent most of their lives (Welch's F(2,577.27) = 6.738, ω^2= 0.012, $p < 0.001$) and the post hoc Games-Howel test revealed that the only statistically significant difference was between small and medium-sized places (mean difference of -0.31, $p < 0.001$). There were no statistically significant differences between groups in terms of their financial status (Welch's F(2,207,19) = 2.193, $p = 0.114$).

Analysis of attitudes towards euthanasia showed similar results to those for attitudes towards abortion, with females having a score 0.578 (± 0.06, CI [0.45,0.70,]) higher (t(1018)=-9.035, $p < 0.001$) than males and final year students having a score 0.23 (± 0,06, CI [0.35, 0.60]) higher than first year students (t(1016)=-3.615, $p < 0.001$). There were also statistically significant differences in religious identification (Welch's F(2,411.98) = 179.55, ω^2= 0.276, $p < 0.001$) with differences between Believers and Non-believers (-1.19, $p < 0.001$) and Believers and Indifferent (-0.98, $p < 0.001$), but no statistical difference between Non-believers and Indifferent (0.21, $p = 0.06$). The mean differences between the groups by political orientation were also statistically different (Welch's F(3, 409.88) = 74.15, ω^2= 0.202, $p < 0.001$), with the lowest mean values again found in the Right (M=-0.69, SD = 1.14) and Not interested (M=-0.07, SD = 0.96) categories. The mean differences are shown in Table 5. As with abortion, there was a statistically significant difference in the groups by size of place of residence (Welch's F(2,602.53) = 6.06, ω^2= 0.010, $p < 0.001$), with the only significant mean difference found by a post hoc test between a small and medium-size place (-0.28, $p = 0.002$). There were no significant differences in terms of financial status (Welch's F(2, 211.80) = 1.82, $p = 0.165$).

The correlation between two the dependent variables "Attitudes towards euthanasia" and "Attitudes towards abortion" showed high positive correlations ($r = 0.838$, $p < 0.001$ (2-tailed)), which can explain very similar results as in the previous analyses.

Discussion

The participants in our study showed general agreement with abortion rights and euthanasia. The results partially confirm the first hypothesis, i.e. it shows that respondents from Croatia, Greece and Italy are in favor of abortion rights to a similar extent. This is in line with existing research showing that a high percentage of people in Italy and Greece support abortion rights [16]. However, the first hypothesis could not be fully confirmed, as it was found that despite their common Mediterranean heritage, there are some differences in attitudes towards euthanasia between the three countries involved in the study. In particular, students in our sample from Italy showed a slightly higher level of support for euthanasia than respondents from Croatia and Greece. This is in line with the latest data on attitudes towards euthanasia in the Italian general population. The 2018 World Values Survey showed that Italy ranked highest among Croatia, Greece, and Italy in terms of average support for euthanasia [35]. In this survey, Italy ranked 19th (out of a total of 120 countries), Croatia 30^{th,} and Greece 50th. Croatia belongs to the group of countries where euthanasia is considered murder and the justification rate is below the European average [24]. One possible explanation for this is that the majority of Croatian citizens identify as Catholics [20].

Even though the results of the World Values Survey show a general increase in the justification of euthanasia, rejection has increased significantly in the former communist countries, including Croatia [36]. The same shift towards greater opposition occurred in Greece, but due to different circumstances – severe economic problems in that country led to budget cuts and reduced public confidence in the medical and public health system, which affected public support for euthanasia [36]. Other authors also observe a polarization in European countries regarding attitudes towards euthanasia and abortion [21, 24], which could also explain the deviation of Italy in our study. Finally, regarding the first hypothesis, our results are consistent with those showing that in European countries the justification of abortion is more present than the justification of euthanasia [24].

The second hypothesis was confirmed, according to which it was to be expected that theology students in our sample would differ from other groups of students in terms of their more conservative views on abortion and euthanasia. Although it was noted in the introduction that religiosity has been shown to be a significant predictor of attitudes towards abortion and euthanasia, given that most world religions condemn abortion and euthanasia, it is not surprising that theology students would have held strongly negative attitudes towards both abortion and euthanasia; theology students' mean scores on approval of abortion and euthanasia were much lower than those of believers (all students in the sample who reported being religious). This could be due to the fact that theology students, as scholars of religion, have quite conservative attitudes towards these issues due to their professional socialization, especially since the majority of religions condemn both practices. In our study, the attitudes of medical students did not differ from those of philosophy and law students. This is surprising, as previous studies in European countries show that physicians are less favorable towards euthanasia and physician-assisted suicide than nurses and the general public [37, 38]. One possible explanation for the discrepancy between the results of our study and those of previous studies is that our sample includes medical students (and not medical doctors) who have not yet been confronted with ethical dilemmas related to euthanasia in practice.

At the same time, however, the Italian healthcare system does not adhere to these attitudes. Although access to legal abortion has been regulated in Italy since 1978, in practice it is not without obstacles [39]. More specifically, 64.6% of gynecologists in Italy are registered as conscientious objectors [39]. This makes Italy one of the countries with the highest percentage of conscientious objectors in Europe [40]. This can be explained by a religious background, as the majority of Italians declare themselves as Catholics.

The third hypothesis, that women, final year students, non-religious, politically left-oriented, who come from larger places of residence and have a better financial status, will have more liberal attitudes, proved to be largely correct. Building on previous findings on the influence of socio-demographic factors on attitudes towards abortion [15–18] and euthanasia [20–23], our study also confirmed that female students, non-religious students, students who are politically left-oriented and those from larger places of residence (living in larger regional centers) are more likely to have liberal attitudes towards abortion and euthanasia. However, it should be noted that the results of previous studies [20, 24] are inconsistent regarding differences in attitudes towards euthanasia – in some there is no difference in relation to gender, in others men have more liberal attitudes towards euthanasia. Further studies should aim to investigate this issue in more detail.

Although previous research points to the contribution of financial status [20, 21], no statistically significant influence on attitude formation was found in this study. One of the reasons for this could be that our respondents are students who are still financially dependent on their parents, so their perception of their financial status does not yet correlate strongly with their attitudes, including those towards bioethical issues. Another reason could be that finances do not play a large role in these decisions – all of these countries have a universal health care system that covers most costs for legalized medical procedures,

which means that it would also cover the cost of euthanasia if it were legalized.

The finding that final year students have more liberal attitudes may indicate the influence that (bio)ethical education on these issues has had on them. We interpret this through the professional socialization that takes place during the years of study, which can reinforce or even change initial attitudes towards certain topics, especially when these topics are the focus of study.

Limitations and future research

There are some limitations of the study that should be acknowledged, mainly related to the sample and the survey design. First, the sample was a random convenient sample, which a priori limits the generalizability of the results to the broader student population. In addition, the subgroups of the sample varied in size, further limiting the statistical analysis and transferability of the results. The sample size is unequal between countries and between subsamples, mainly due to convenience sampling and practical problems in the field (accessibility and responsiveness of different universities/disciplines, etc.). First, the sample differs according to the city. Once the three Mediterranean countries were selected for this project, we selected cities from team members from each country to facilitate the administration of the questionnaire. The main criterion was that they had universities with a relevant number of students to fulfill the sampling and subsampling. The Croatian team was larger, so they administered the questionnaire in three cities/universities, while Greece and Italy surveyed one city each. Secondly, due to the lack of responses from law and philosophy students, the sample size in Greece was insufficient to include these fields of study in the analysis. Although it would have been valuable to include Greek students in the comparison between the fields of study, this did not affect the main objectives of the study as a whole, which were primarily concerned with the differences between the students surveyed in the different countries. In addition, the socio-demographic differences were examined overall (not by individual country) so that there was a sufficient size of the subsamples to compare them. Although future studies should take this limitation into account and attempt to achieve more equal sample and subsample sizes, this does not affect the main conclusions of this study, which we do not generalize outside of the populations studied.

Although the research aim was to compare the attitudes of first and final year students, differences in the size of certain course groups meant that second and fourth year students were added to the sample. Furthermore, due to the cross-sectional design of the study, it is not possible to draw causal conclusions. The decision to use the questionnaire in English in all countries was justified because in most European countries university students are expected to have an upper intermediate level of English [41] and the researchers administering the survey were present throughout the survey and could answer all questions if necessary. However, it is possible that not all students had the expected level of proficiency, which could mean that there were difficulties in understanding certain terms, especially as bioethical topics involve technical terminology that is not used in everyday language. The advantage of using an instrument in English was that there would be no translation-related differences in the meaning of certain concepts and the data would be easier to compare. It should also be noted that the Law Department at the University of Messina translated the questionnaire into Italian, so that these students could complete the survey in their native language. As the data from this group did not differ significantly from the overall sample and there were only a few cases where students did not understand the English terminology, these participants were not removed from the analyses.

Future studies could extend the cross-cultural analysis to other Mediterranean countries within and outside Europe as well as to other, i.e. European, countries to allow for regional comparison. Of course, nationally representative surveys would be useful to draw conclusions for the whole population, not just students. It would also be useful to include some other fields of study in the student sample, e.g. technical and biotechnical as well as art departments. It might also be interesting to limit the sample to Medical students and see if there are differences between them based on their respective specializations. Finally, although we have included other bioethical issues in the broader research project of which this study is a part, it would be useful for future research to have more instruments on other topics related to the beginning and end of life.

Conclusion

The questions of the beginning and end of life remain a constant point of contention in public discourse, in the media, but also among professionals who deal with these bioethical questions in the ethical, legal, medical or social fields. Rather than relying on various arguments from the public and the media sphere, it is therefore important to empirically investigate how young professionals currently being trained in their respective professions think about some of the most important bioethical issues at the beginning and end of life, such as abortion and euthanasia. We also need to be aware that these decisions are never made in a vacuum at personal, institutional and national levels – they are highly dependent on the socio-cultural contexts in which they are made. Therefore, we wanted to find out how three countries belonging to a similar socio-cultural and religious heritage, namely the

Euro-Mediterranean region (Croatia, Italy and Greece), and their students from four fields of study (Medicine, Law, Philosophy, Theology), think about these issues. We also wanted to relate them to other socio-demographic characteristics to see if these might have a greater influence than regional and occupational factors.

Our results showed that students in selected fields of study from Croatia, Greece and Italy did not differ in their attitudes towards abortion. There were also no differences between students from Croatia and Greece with regard to euthanasia, but students from Italy stood out with a slightly higher approval of euthanasia. Theology students in our sample were also found to have more negative attitudes towards abortion and euthanasia (compared to students from other fields of study). In terms of socio-demographic characteristics, our research confirmed that women, non-religious people and people on the left of the political spectrum are more likely to have liberal attitudes towards abortion and euthanasia.

Finally, can we speak of a uniform "Euro-Mediterranean" attitude towards bioethical dilemmas, in this case abortion and euthanasia? Although we realize that it would be wrong to make a judgement about the Mediterranean region in general (or even just about "Euro-Mediterranean") on the basis of our study, we allow ourselves to suggest that students in the three Mediterranean countries have similar attitudes towards the two typical issues related to the beginning and the end of life – i.e. abortion and euthanasia (with a slight difference in the Italian students' attitudes towards euthanasia, perhaps due to the recent hot public debate in Italy). This could be taken as evidence that a common ground for a "Mediterranean bioethics" is not impossible.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12910-025-01167-8.

Supplementary Material 1

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Author contributions
Design and conduct of the research, critical paper revision, reading and approving the final manuscript: all authors. Writing the paper: I.T.G., A.D., I.E., A.M., T.T.P. Statistical analysis: T.T.P., A.D.

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Data availability
Raw data are stored at the Faculty of Medicine of the University of Rijeka. Derived data supporting the results of this study are available upon request from the corresponding author, Dr. Toni Buterin.

Declarations

Ethics approval and consent to participate
The research was conducted in accordance with the Declaration of Helsinki and approved by the Ethics committee for Biomedical Research at the Faculty of Medicine of the University of Rijeka on September 27, 2022 (class: 007–08/22 – 01/61, issue number: 2170-24-04-3/1-22-7). Implicit informed consent was obtained from all of the participants.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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References

1. Johnson SM. Abortion. II. Ethical perspectives. In: Jennings B B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 8–22.
2. Tubbs JB. A handbook of Bioethical terms. Georgetown: Georgetown University Press; 2009.
3. Prijić–Samaržija S, editor. Abortion – for and against: collection of texts [Pobačaj – za i protiv: Zbornik Tekstova]. Rijeka: Hrvatski kulturni dom Rijeka; 1995. [In Croatian].
4. Thomson JJ. A defense of abortion. Philos Public Affairs. 1971;1(1):47–66.
5. Protopapadakis ED. From Dawn till Dusk (Bioethical insights into the beginning and the end of life). Berlin: Logos Verlag Berlin GmbH; 2019.
6. Allen AL, Abortion III. Legal and Regulatory issues. In: Jennings B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 22–34.
7. Rittossa D. Taking the right to abortion in Croatia seriously – one of the basic constitutional rights or a rudiment of the right to Reproduction? Cardozo J Law Gend. 2007;13(2):273–303.
8. Hlača N. Law on abortion of the Republic of Croatia 1978–2008 [Zakon o 'pobačaju' republike hrvatske 1978.-2008]. Medicina. 2009;45(2):142–7. [In Croatian].
9. Bakar O. Abortion. III. Religious traditions: D. Islamic perspectives. In: Post SG, editor. Encyclopedia of Bioethics. New York: Macmillan Reference; 2004. pp. 39–43.
10. Cahill LS. Abortion. V. Roman Catholic perspectives. In: Jennings B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 37–41.
11. Deal W. Abortion. VIII. Buddhist Perspectives. In: Jennings B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 51–4.
12. Gupta JA. Abortion. IX. Hindu perspectives. In: Jennings B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 55–8.
13. Wildung Harrison B, Abortion. III. Religious traditions: C. Protestant perspectives. In: Post SG, editor. Encyclopedia of Bioethics. New York: Macmillan Reference; 2004. pp. 35–9.
14. Zoloth L. Abortion. IV. Jewish perspectives. In: Jennings B, editor. Bioethics. New York: Macmillan Reference; 2014. pp. 34–7.
15. Baltzersen E. Attitudes Towards Assisted Reproductive Technology (ART) and Abortion Evidence from Europe (Master Thesis). Oslo: University of Oslo, Department of Political Science; 2022.
16. Fetterolf J, Clancy L. Support for legal abortion is widespread in many places, especially in Europe. Pew Research Center. 2024 May 15. Available from: https://www.pewresearch.org/short-reads/2024/05/15/support-for-legal-abortion-is-widespread-in-many-countries-especially-in-europe/. Accessed 4 Sept 2024.
17. Ipsos. Global views on abortion – A 29-country Global Advisor survey. 2023. Available from: https://www.ipsos.com/en/global-views-abortion. Accessed 29 Aug 2024.
18. Loll D, Hall KS. Differences in abortion attitudes by policy context and between men and women in the World Values Survey. Women Health. 2018. https://doi.org/10.1080/03630242.2018.1508539.
19. Muzur A. John Keown: Euthanasia, Ethics and Public Policy – An Argument against Legalisation, 2nd ed. (book review). Jahr – Eur J Bioeth. 2019;10(1):227–8.
20. Borovečki A, Ćurković M, Nikodem K, Orešković S, Novak M, Rubić F, Vuković J, Špoljar D, Gordijn B, Gastmans C. Attitudes about withholding or

withdrawing life-prolonging treatment, euthanasia, assisted suicide, and physician assisted suicide: a cross-sectional survey among the general public in Croatia. BMC Med Ethics. 2022. https://doi.org/10.1186/s12910-022-00751-6.
21. Bartolomé-Peral E, Coromina L. Attitudes towards life and death in Europe: a comparative analysis. Sociologický časopis /. Czech Sociol Rev. 2020. https://doi.org/10.13060/csr.2020.052.
22. Magelssen M, Le NQ, Supphellen M. Secularity, abortion, assisted dying and the future of conscientious objection: modelling the relationship between attitudes. BMC Med Ethics. 2019. https://doi.org/10.1186/s12910-019-0408-4.
23. Montañés P, Soriano ME, Manzano-García G. The social perspective of euthanasia in Spain: variables that predict attitudes towards euthanasia. Anales De psicología / Annals Psychol. 2023. https://doi.org/10.6018/analesps.511201.
24. Silvestre M, Aristegui I, Beloki U. Abortion and euthanasia: explanatory factors of an association in Thanatos. Analysis of the European values study. Front Political Sci. 2022. https://doi.org/10.3389/fpos.2022.966711.
25. Halman L, Ingen EV. Secularization and changing Moral views: European trends in Church attendance and views on homosexuality, divorce, abortion, and Euthanasia. Eur Sociol Rev. 2015;31:616–27.
26. Camus A. L'Homme révolté. Paris: Gallimard; 1951.
27. MacIntyre A. After Virtue: a study in Moral Theory. London: G. Duckworth; 1981.
28. Gracia Guillén D. Fundamentos De bioética. Madrid: Editorial Eudema; 1989.
29. Privitera S. Alle radici della Bioetica… nel Mediterraneo. In: Privitera S, editor. Bioetica mediterranea e nordeuropea. Roma: Armando Editore; 1996. pp. 7–16.
30. Rinčić I, Muzur A, Richie C. The eco ethical contribution of Menico Torchio – a forgotten pioneer of European Bioethics. Philosophy, Ethics and Humanities in Medicine; 2023. p. 1820.
31. Mittelstraß J. The loss of knowledge in the information age. In: de Corte E, et al. editors. From information to knowledge, from knowledge to Wisdom: challenges and changes facing higher education in the Digital Age. London: Portland; 2010. pp. 19–23.
32. Čović A. Der Aufbau eines Referenzzentrums für Bioethik in Südosteuropa: ein weiterer Schritt zur Institutionalisierung des bioethischen Pluriperspektivismus. In: Čović A, Sören Hoffmann T, editors. Integrative Bioethik: Beiträge des 1. Südosteuropäischen Bioethik-Forums, Mali Lošinj 2005 / Integrative Bioethics: Proceedings of the 1st Southeast European Bioethics Forum, Mali Lošinj 2005. Sankt Augustin: Academia Verlag; 2007. pp. 261–274.
33. Muzur A, Rinčić I. Bioethical Europe of our time: currents, helmsmen, anchorages. Zagreb: Pergamena; 2018. pp. 117–24. [In Croatian].
34. Cifrić I, Marinović Jerolimov D. (2007). Abortion as a bioethical challenge. Sociology and space. 2007;45(3/4;177/178):247–268. [In Croatian].
35. Cifrić I, Nikodem K. Euthanasia in a social and religious context. In: Šegota I, editor. Bioethics and palliative care: VI. Bioethical round table. Rijeka: Medical Faculty, Department of social sciences and medical humanities; 2005. pp. 113–32. [In Croatian].
36. Inglehart RC, Nash R, Hassan QN, Schwartzbaum J. Attitudes toward Euthanasia: a longitudinal analysis of the role of Economic, Cultural, and Health-related factors. J Pain Symptom Manag. 2021;2021. https://doi.org/10.1016/j.jpainsymman.2021.01.009.
37. Emanuel EJ, Onwuteaka-Philipsen BD, Urwin JW, Cohen J. Attitudes and practices of Euthanasia and Physician-assisted suicide in the United States, Canada, and Europe. JAMA. 2016. https://doi.org/10.1001/jama.2016.8499.
38. Gatto A, Borges Meneses RD. (2016). Euthanasia or Physician-Assisted Suicide: Attitudes of European Physicians. Prosopon: Europejskie Studia Społeczno-Humanistyczne. 2016;14(1):65–76.
39. Caruso E. The hyper-regulation of abortion care in Italy. Ethical and legal issues in reproductive health. Int J Gynecol Obstet. 2023. https://doi.org/10.1002/ijgo.15150.
40. Autorino T, Mattioli F, Mencarini L. The impact of gynecologists' conscientious objection on abortion access. Soc Sci Res. 2020. https://doi.org/10.1016/j.ssresearch.2020.102403.
41. Council of Europe. Common European Framework of Reference for Languages: Level Descriptions. https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions. Accessed 28 Oct 2024.

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