

# Testamento Vital: Conhecimentos e Atitudes de Alunos Internos de um Curso de Medicina

## The Living Will: Knowledge and Attitudes of Medical Interns

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### RESUMO

**Introdução:** O testamento vital é um documento em que o paciente define a que tipo de procedimentos médicos deseja ser submetido quando se encontrar em fase final de vida e constitui importante ferramenta de garantia da dignidade e autonomia do paciente. **Objetivo:** Avaliar o nível de entendimento que os alunos internos do curso de medicina têm acerca do testamento vital e das decisões envolvendo o final da vida. **Métodos:** Tratou-se de estudo quantitativo, descritivo e transversal, realizado com 147 acadêmicos de medicina que cursavam período relativo ao internato médico, através de questionário composto por 10 questões, que permitiram aferir o nível de conhecimento dos estudantes sobre o testamento vital, verificar a sua opinião pessoal em respeitar ou não o conteúdo de tal documento, e questionar acerca da oportunidade de discutir sobre testamento vital durante a graduação. As respostas dos alunos na questão relativa ao conhecimento acerca do testamento vital foram categorizadas em três possíveis grupos: “noção clara”, “noção parcial” e “noção equivocada ou desconhecimento do termo”. **Resultados:** Entre os entrevistados, apenas 12,9% possuíam noção clara do significado do termo “testamento vital”, enquanto 74,2% dos acadêmicos possuíam noção parcial do termo e 12,2% possuíam noção equivocada do termo ou o desconheciam. Apesar disso, 96,6% dos estudantes relataram que essa temática foi discutida durante a graduação e 87,1% afirmaram conhecer a Resolução do Conselho Federal de Medicina nº 1.995/2012. A maioria dos estudantes (98%) declarou que, em caso de um paciente em fase final de vida ter ou ser detentor de um testamento vital, respeitaria as determinações previstas nesse documento. **Conclusão:** Observou-se que, apesar de grande parte dos alunos possuírem algum conhecimento sobre o termo “testamento vital”, apenas uma pequena parcela deles dispunha de noção clara de seu significado. Apesar disso, suas atitudes frente a um paciente detentor de um testamento vital são claramente positivas, demonstrando boa aceitação do testamento vital pelo futuro médico.

### PALAVRAS-CHAVE

- Diretivas antecipadas.
- Testamentos quanto à vida.
- Estudantes de medicina.
- Educação médica.
- Bioética.

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## KEY-WORDS

- Advance directives.
- Living wills.
- Medical students.
- Medical education.
- Bioethics.

## ABSTRACT

**Introduction:** *The living will is a document in which the patient defines what kind of medical procedures he or she wishes to undergo during the final stage of life, and is an important tool for guaranteeing the patient's dignity and autonomy.* **Objective:** *To evaluate the level of understanding among medical interns about the living will and end-of-life decisions.* **Methods:** *This was a quantitative, descriptive, cross-sectional study conducted with 147 medical students taking their internship, through a questionnaire composed of 10 questions. These questions enabled us to evaluate the students' level of knowledge about the living will, and to verify their personal opinions on how far the content of this document should be respected, and to ask whether they had had an opportunity to discuss the living will during their undergraduate studies. The students' knowledge of the living will was categorized into three groups: "clear understanding", "partial notion," and "misconception or misunderstanding of the term."* **Results:** *Among the interns interviewed, only 12.9% had a clear understanding of the meaning of the term "living will", while 74.2% had a partial notion of the term and 12.2% had a misconception of the term. Nonetheless, 96.6% of the students reported that this topic was discussed during their graduate studies, and 87.1% reported knowledge of Federal Medical Council Resolution no. 1995 of 2012. Most of the students (98%) stated that in the case of a terminally ill patient with a living will, they would comply with the provisions of this document.* **Conclusion:** *Although many of the students had some knowledge of the term "living will", only a small portion of them had a clear understanding of its meaning. Despite this, their attitudes towards a patient with a living will were clearly positive, demonstrating good acceptance of the living will among future physicians.*

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## INTRODUCTION

The major scientific-technological advances witnessed from the early 20<sup>th</sup> century onwards have made it possible to prolong human life for previously unimaginable lengths of time, and this has had a direct impact on the limits of the period known as end-of-life<sup>1</sup>. While the possibility of ruling out death represents a hugely important tool to the medical professional, there must be constant consideration regarding the risk of prolonging the process of dying with suffering, for everyone has their own moral standard, with their personal views on death and on the human body.

Against this backdrop, the living will, a legally-binding type of advance directive, in which the patient defines which types of medical procedures and treatments he or she wishes to undergo when it becomes longer possible to revert his or her clinical condition and the patient is incapable of expressing their will or making decisions by themselves<sup>2</sup>.

The living will aims to enhance communication between doctors, patients and family members. Its purpose is to prevent families from possibly making decisions against the patient's will, bearing in mind the patient may not be prepared

to take decisions about the treatment maintenance or interruption, considering the mental and emotional instability they might be under<sup>3</sup>.

Advance directives of will, although most commonly used in end-of-life situations or by patients with chronic degenerative diseases, are also valid for people in a good state of health, offering them the chance to elect an individual in advance who can represent them in decisions about their health care, in the event they become incapable of doing so themselves, and to discuss situations in which they would not like their lives to be prolonged by futile or disproportional therapeutic efforts<sup>4</sup>.

In the United States it has been recognised as a patient's right to self-determination since 1991, upon approval of the *Patient Self-Determination Act* by the US Congress<sup>5</sup>. Puerto Rico was the pioneer in legislating on advance directives in Latin America<sup>6</sup>. Argentina and Uruguay subsequently followed suit<sup>7-9</sup>. In Europe, advance directives are already regulated by law in countries such as Spain and Portugal<sup>10,11</sup>.

In Brazil, there is no specific legislation on this issue, however, in August 2012 the Federal Medicine Council (CFM) approved resolution CFM 1.995, whereby doctors are now

required to respect the wishes of terminal patients, except in cases where this proves to be contrary to the precepts of the Code of Medical Ethics<sup>12</sup>.

Despite the pressing importance of this issue in Brazil, considering the fact that a large number of hospital beds are occupied by terminal patients, there are very few studies that evaluate the knowledge of health care students and professionals about the living will; the focus of most available papers on the matter is aimed at the legal aspects and the opinion of professionals regarding its applicability. Hence, the relevance of the issue and the importance of the medical professional's understanding of advance directives were the main grounds to justify this study, which had the aim of evaluating the level of understanding among medicine students regarding the living will and end-of-life related decisions.

## METHOD

This is a quantitative, descriptive and cross-sectional study. The data was collected at a university in the city of São Luís, Maranhão, in the period of August to October 2017.

The sample consisted of students from the medicine course of this university, who were at the medical internship stage of their studies (9<sup>th</sup> to 12<sup>th</sup> semesters). The study sought to include all the students who were within this interval during the data collection period. The following eligibility criteria were considered for definition of the sample: being enrolled at the institution in the study period, between the 9<sup>th</sup> and 12<sup>th</sup> semesters; and aged 18 years old or above. Students who presented any impediment to application of the questionnaire were not included.

A questionnaire model prepared by Silva *et al*<sup>13</sup> was used as the data collection instrument for this study. The questionnaire was composed of ten questions. The first four questions were designed to characterise the student in terms of age, sex, semester of study on the medicine course and religion. The following question referred to conduct in relation to a patient at end-of-life (euthanasia, dysthanasia or orthothanasia). The sixth question was open and asked the student to define the term "living will", without consulting any bibliography. After this question, the students were provided with a definition of "living will" so that they could answer the following questions that addressed conduct in relation to a patient at end-of-life and who has a living will (whether or not the wills expressed in that document should be respected), about the opportunity to discuss this issue during undergraduate studies, and about knowledge of Federal Medical Council Resolution 1.995 of 9 August 2012, which defines "advance directives of patient's will", as well as the source of such knowledge.

These questionnaires were applied to the students collectively by the researchers, in a classroom, following an explanation of the objectives of the study and presentation of the Free and Informed Consent Form (FICF), highlighting that participation in the research was voluntary and recommending that the questionnaires were answered individually. The students who agreed to participate in the study were then invited to sign the FICF for formalization purposes.

This study was conducted in accordance with the Standards and Guidelines for Research Involving Human Beings (CNS Resolution 466/12)<sup>14</sup>, and with the principles of the Helsinki Declaration<sup>15</sup>, and was approved by the Research Ethics Committee - CAAE 67780417.3.0000.5086.

The quantitative data of the study were processed using the software Excel 2016. For analysis of the question regarding student knowledge about the living will, the study table of Piccini *et al*<sup>16</sup> was adopted, which was developed based on the Collective Subject Discourse (CSD) analysis method. CSD is a data organisation and tabulation method, and consists of a speech-synthesis based on parts of speech with similar meaning, by means of systematic and standardised procedures<sup>17</sup>. Thus this table was used to categorise the interviewed student's knowledge into three groups: "clear understanding", "partial notion" and misconception or misunderstanding of the term". The student was considered to have a "clear understanding" of the living will when their answer included key expressions with the central idea that a "living will is the advance expression of my desire and it ensures my autonomy"; answers with the central idea of "living will is a declaration where the patient defines the medical conduct to be adopted in the case of certain diseases" were classified as "partial notion". All other answers were classed as misunderstanding or misconception of the term.

## RESULTS

The study involved the participation of 147 medicine students from a total of 176 enrolled in the final 2 years of the course, with the following distribution: 42 students from the 9<sup>th</sup> semester, 35 students from the 10<sup>th</sup> semester, 25 students from the 11<sup>th</sup> semester and 45 students from the 12<sup>th</sup> semester. The sample of the participant students consisted of a majority of males (63.3%) aged between 20 and 26 years (83.7%). In relation to religion, the most frequently reported by the interviewees was Catholic (54.4%), while another 23.8% reported being non-religious. The participant profile is detailed in Table 1.

When questioned about conducts toward an end-of-life patient, 97.3% of the students said they were in favour of "promoting palliative care, with the purpose of reducing suffering

**TABLE 1**  
**Distribution of the students by sex, age and religion. São Luís, Maranhão, 2018**

| Variables    | 9 <sup>th</sup>   | 10 <sup>th</sup>  | 11 <sup>th</sup>  | 12 <sup>th</sup>  |
|--------------|-------------------|-------------------|-------------------|-------------------|
|              | Semester          | Semester          | Semester          | Semester          |
|              | n (%)             | n (%)             | n (%)             | n (%)             |
| Gender       |                   |                   |                   |                   |
| Male         | 24 (57.1)         | 25 (71.4)         | 16 (64.0)         | 28 (62.2)         |
| Female       | 18 (42.9)         | 10 (28.6)         | 9 (36.0)          | 17 (37.8)         |
| Age (years)  |                   |                   |                   |                   |
| 20-26        | 33 (78.6)         | 29 (82.8)         | 21 (84.0)         | 40 (88.9)         |
| 27-33        | 9 (21.4)          | 3 (8.6)           | 3 (12.0)          | 4 (8.9)           |
| 34-40        | 0                 | 3 (8.6)           | 1 (4.0)           | 1 (2.2)           |
| Religion     |                   |                   |                   |                   |
| Catholic     | 23 (54.8)         | 18 (51.4)         | 15 (60.0)         | 24 (53.4)         |
| Protestant   | 8 (19.0)          | 7 (20.0)          | 3 (12.0)          | 6 (13.3)          |
| Spiritualist | 1 (2.4)           | 1 (2.9)           | 0                 | 4 (8.9)           |
| Other        | 0                 | 1 (2.9)           | 0                 | 1 (2.2)           |
| None         | 10 (23.8)         | 8 (22.8)          | 7 (28.0)          | 10 (22.2)         |
| <b>TOTAL</b> | <b>42 (100.0)</b> | <b>35 (100.0)</b> | <b>25 (100.0)</b> | <b>45 (100.0)</b> |

**TABLE 2**  
**Level of knowledge of medical students about the living will. São Luís, Maranhão, 2018.**

| Knowledge about the living will               | 9 <sup>th</sup>   | 10 <sup>th</sup>  | 11 <sup>th</sup>  | 12 <sup>th</sup>  |
|---|-------------------|-------------------|-------------------|-------------------|
|   | Semester          | Semester          | Semester          | Semester          |
|   | n (%)             | n (%)             | n (%)             | n (%)             |
| Clear understanding                           | 4 (9.5)           | 4 (11.4)          | 2 (8.0)           | 9 (20.0)          |
| Partial notion                                | 30 (71.5)         | 28 (80.0)         | 18 (72.0)         | 33 (73.3)         |
| Misconception or misunderstanding of the term | 8 (19.0)          | 3 (8.6)           | 5 (20.0)          | 2 (4.5)           |
| Abstained from answering the question         | 0                 | 0                 | 0                 | 1 (2.2)           |
| <b>TOTAL</b>                                  | <b>42 (100.0)</b> | <b>35 (100.0)</b> | <b>25 (100.0)</b> | <b>45 (100.0)</b> |

in the patient’s final moments, without reverting to treatments that aim to conserve beyond the natural time a life for which there is no possibility of improvement”, and only 3 students (2.0%) were in favour of “accelerating the end, adopting an active or passive life interruption conduct”; 1 student referred to being in favour of “prolonging a terminal existence through the intensive use of drugs and instruments, even in the knowledge that this also means prolonging and increasing the agony”.

In relation to the students’ level of knowledge about the living will, it was found that only 19 students (12.9%) had a clear understanding of the meaning of the term, whereas 74.2% of the academic had a partial notion of the term and 12.2% displayed misconception or misunderstanding of the term (Table 2). Only 1 student abstained from answering the question. The class that showed the best level of knowledge about the living will was the 12<sup>th</sup> semester class, of which 20% of the students had a clear understanding of the term.

When the question was whether, in the event of the end-of-life patient having or being the holder of a living will, the student would respect what was established in that document, except in the case of conscientious objection, the vast majority of the academics (98%) responded that they “would respect the express will in relation to medical conducts that the patient wishes to be adopted, provided they do not violate the rules established in the Code of Medical Ethics”. Only 3 students (2%) gave the response “I would take the medical decisions that I judged to be best for my patient, even if they did not correspond to the will expressed in his/her living will”.

The students were also asked whether they had had the opportunity to discuss the “living will” issue during their undergraduate studies, and 96.6% stated that this issue was debated on at least one occasion during their studies. 87.1% of the students reported knowledge of Federal Medicine Council Resolution 1.995 of 9 August 2012, which defines “advance directives of patient’s will” (Table 3).

Among the students who claimed knowledge of CFM Resolution 1.995, the majority (92.3%) reported obtaining such knowledge through classes at the university. Other sources cited by the students were the internet (5.4%) and courses organised by academic leagues (2.3%).

**DISCUSSION**

Discussions about the living will in Brazil are still recent and scientific production on this matter is scarce, especially when the focus is on doctors’ and medical students’ knowledge about this document. On the medicine course of the university assessed in this study, matters related to bioethics and end-of-life are discussed at three distinct instances: in the Medical Psychology module, given in the first semester, in the Bioethics module, in the 3<sup>rd</sup> semester and in the Integration VIII module (aimed at addressing issues related palliative care), given in the 8<sup>th</sup> semester. This curricular organisation is satisfactory when compared to other medicine schools in Brazil<sup>18</sup>. This is a likely contributory factor for the vast majority of the students (87.1%) knowing the term living will, despite only 12.9% having a clear understanding of its meaning.

The numbers found in this work were superior to those reported in a study conducted with medicine students from the Pará State University who were between the 1<sup>st</sup> and 8<sup>th</sup> semester, where only 8% demonstrated a clear understanding of the meaning of the term “living will” and 33.1% had a partial notion. As regards the interviewees’ knowledge of

**TABLE 3**  
**Opportunity to discuss the “living will” issue during undergraduate studies and knowledge of CFM Resolution 1.995 among medicine students. São Luís, Maranhão, 2018.**

| Question  | 9 <sup>th</sup> Semester |         | 10 <sup>th</sup> Semester |          | 11 <sup>th</sup> Semester |           | 12 <sup>th</sup> Semester |         |
|---|--------------------------|---------|---------------------------|----------|---------------------------|-----------|---------------------------|---------|
|   | n (%)                    |         | n (%)                     |          | n (%)                     |           | n (%)                     |         |
|   | Yes                      | No      | Yes                       | No       | Yes                       | No        | Yes                       | No      |
| Did you have the opportunity to discuss the issue of “living will” in your undergraduate studies? | 42 (100.0)               | 0       | 35 (100.0)                | 0        | 23 (92,0)                 | 2 (8)     | 42 (93,3)                 | 3 (6,7) |
| Do you know of CFM Resolution 1.995 that defines “advance directives of patient’s will”?          | 41 (97.6)                | 1 (2.4) | 31 (88.6)                 | 4 (11.4) | 15 (60,0)                 | 10 (40,0) | 41 (91,1)                 | 4 (8,9) |
| <b>TOTAL</b>  | <b>42 (100.0)</b>        |         | <b>35 (100.0)</b>         |          | <b>25 (100.0)</b>         |           | <b>45 (100.0)</b>         |         |

CFM Resolution 1.995/2012, a significant portion of the students (29%) reported ignorance of it. Furthermore, in relation to the opportunity to discuss this issue during undergraduate studies, 47.9% of the students reported having done so<sup>13</sup>. This difference can be explained by the fact that the students in this study were at a later stage in their medicine course and therefore had more experience in clinical situations.

A study conducted in Santa Catarina state found that 79% of medical students had some knowledge about the living will, where 29% had a clear understanding of the term. Meanwhile among the doctors, 37% had a clear understanding and 26% had a partial notion of the meaning of the term. As regards conduct toward an end-of-life patient, 96.3% of the doctors were in favour of orthothanasia, compared to 92.8% of the student medics.

Furthermore, in the event of the patient having a living will, 60.77% of the interviewees stated that they would choose to respect the patient’s autonomy and his/her advance directives<sup>19</sup>. By comparison, this study demonstrated a lower level of knowledge of the living will (only 12.9% of the students had a clear understanding of the term), despite this, the numbers related to students’ acceptance of the desires expressed in this document were significantly higher (98%), which may reflect an increased respect among young medics for the patient’s right to actively participate in decisions about their own life, valuing their autonomy.

A similar outlook was also observed in a study conducted with medical residents of the Instituto do Coração (Heart Institute), in São Paulo, which found that 65.3% of them had some knowledge of the living will, while 96.8% believed that such document would be useful for decision making, and 84.3% would respect the desire expressed in the living will without question<sup>19</sup>. A qualitative study showed that the majority of the medics considered the living will an instrument capable of materialising patient autonomy, allowing the prior expression of desires and expectations relative to their health,

and constituting an important tool to offer better assistance to the terminally ill patient<sup>20</sup>.

However, the lack of legal regulation for the living will in Brazil is something that can contribute to its restricted use, due to the concern on the part of some professionals about suffering legal consequences. A study conducted in Juiz de Fora, Minas Gerais, showed that only 47.6% of the medics interviewed felt at ease about following certain instructions contained in a living will, while 83% of them declared they would feel more secure if there were legal regulation for this document<sup>2</sup>. Furthermore, a significant portion of the doctors and medical students thought that the undergraduate medical degree program did not offer the theoretical and practical preparation to deal with death and dying<sup>21</sup>, which hinders the professional’s decision making in end-of-life situations.

The results presented here also show that the students in the final stage of their medical course still have lots of doubts about the living will. However, this lack of knowledge among medical academics is not a problem confined to Brazil, for it has been verified in several international studies conducted with students and professionals who have already graduated, even in countries where these directives are regulated by law<sup>22-26</sup>.

Almost all the participants of this study were in favour of using orthothanasia for end-of-life patients, and also claimed that they would respect the instructions and wishes expressed in a living will. Such conducts adhere to the provisions article 41 and chapter V of the Code of Medical Ethics and CFM Resolution 1.995/2012, respectively.

The potential effects of this work are mainly related to the opportunity to discuss and improve the teaching of bioethics at Brazilian universities, highlighting the very opportunity for discussion offered when applying the questionnaires. As a limitation, one can primarily point to the simplified format of the questionnaire, applied at a single moment, and containing only one discursive question, which may have impeded the student from better expressing their opinion and knowledge.

## FINAL CONSIDERATIONS

Based on the data obtained in this study it was found that, even though a clear understanding of the meaning of the term “living will” is within the reach of few students, the majority of the students who participated in the study possessed some knowledge about the term. Furthermore, their attitudes toward a patient who holds a living will are clearly positive, as a high percentage of the academics declared that they would respect the instructions established in that document. In view of this, it is hoped that the results of this study can support the discussion about the teaching of bioethics at medical schools, and above all regarding issues related to end-of-life, to ensure that patients can exercise their autonomy and the quality of care can be improved.

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### CONFLICT OF INTEREST

The authors hereby declare having no conflicts of interest.

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### AUTHORS' PARTICIPATION

Matheus Veras Guterres Mendes, Julio Cesar de Oliveira Silva e Marcelly Amanda Lucena Ericeira participated in designing and outlining the study, bibliographical research, data collection and writing of the article. Alcimar Nunes Pinheiro participated in supervision, critical review, formatting and approval of the final version of the article.

### CORRESPONDENCE

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