

Expression of the concept of death by residents of a tertiary hospital

Verónica Alejandra Gaona-Flores^{1*}, Luz Arcelia Campos-Navarro², Joaquín Ocampo-Martínez³, Margarita Patino-Pozas³ and Óscar Ovalle-Luna⁴

¹Infectology Hospital; ²Gaudencio González Garza Hospital of the Centro Médico Nacional La Raza, IMSS, México, D.F.; ³Faculty of Medicine, Universidad Autónoma de México, México, D.F.; ⁴Epidemiological Surveillance Coordination, IMSS, México, D.F., México

Abstract

Introduction: Attitudes of health professionals are based on their conditions and personal life experiences about life and death and are part of their professional behavior. Medical training relies mainly on physical-biological sciences and, to a lesser extent, on social-medical aspects, thus forming the physician's concept about death. These concepts may present themselves as a result of culture and as factors that model or limit the cognitive development of the physicians. **Objective:** To determine the concept of death of medical residents in a high-specialty hospital. **Methods:** A cross-sectional, prospective survey of physicians in training from the first to the sixth year from different specialties. Descriptive statistical analysis was carried out. **Results:** We made 174 surveys; 61% were in the first year of the specialty; 149 practiced some religion. Women were 3.5 times more likely to have a concept of death that was not that of a biologist, unlike men. Women were 25% more likely to have had an influence of religion on their concept of death. **Conclusions:** The personality of the physician is versatile. It has a relationship with professional and human experiences. As training progresses, medical influence transforms biological or religious views. The concept of death and its influence on the idea appeared to be different between male and female physicians. (Gac Med Mex. 2015;151:538-43)

Corresponding author: Verónica Alejandra Gaona-Flores, vgaona2@yahoo.com.mx

KEY WORDS: Attitude to death. Thanatology. Religion. Terminal care.

Introduction

Throughout human history and in the development of scientific thought, death has been analyzed from very particular perspectives and in different circumstances: it is considered, conceived, shaped and enacted from different angles and with very diverse contents. Throughout his history, mankind has expressed constant and universal concerns and fear with regard to death, faced with the awareness that death is a reality. The

subject of death is understood as being broad and essential and as requiring time to be reflected on. Behaviors in the face of death are hard to explain.

Death is difficult to define; it involves different spheres and biological, medical, legal, social and religious knowledge, among other, which are intricately intertwined. Everyone gives some sense to death.

Death is an unavoidable part of the vital process, as natural as being born or growing, although it is difficult to cope with. Patients at terminal phase have necessities in emotional, spiritual and physical aspects, hence

Correspondence:

*Verónica Alejandra Gaona-Flores
Hospital de Infectología, Centro Médico Nacional La Raza
Jacarandas y Seris s/n
Col. La Raza, C.P. 02990, Azcapotzalco, México, D.F., México
E-mail: vgaona2@yahoo.com.mx

Date of reception: 10-07-2014
Date of acceptance: 22-01-2015

the importance of attending to the patient in his/her physical or biological needs, in his/her value and dignity, and offering resources and tools that allow for him/her to cope with death with strength and courage. Consequently, based on the above, each end-stage patient, as well as all those around him/her, react in an individual form at the proximity of death, with fear, anxiety, loneliness^{1,2}.

The healthcare professional assumes a characteristic and personal behavior towards death, probably based on the experience with death according to his/her professional practice and personal experiences with regard to life and death³.

The teaching of medicine rationally relies on psychobiological sciences, and to a lesser extent on the sociomedical area, to explain and solve health problems^{4,5}. Usually, the idea the physician has about death arises from this background, his/her professional training, without setting aside personal and familiar experiences. Concepts can be represented as products of culture and as modeling or limiting factors in the physicians' cognitive development. Today, with the advances achieved on diagnostic and therapeutic technologies, people's life has been able to be prolonged, with cardiorespiratory, ventilatory and parenteral nutritional support, as well as with antibiotics that allow for better control of infections; as life is prolonged, its quality may not agree with it. Society is not prepared to assume death, perhaps even the physician neither is, he/she hasn't been trained to separate his/her professional efficiency from a patient's death⁶.

Although the subject of death is of the utmost importance for general or specialized medicine, little attention has been paid to its conceptual scheme. Each medical specialty entails a process of becoming more technical that provides the particular characteristics corresponding to each one of them, with higher level of scientific knowledge; this way, healthcare professionals face in a particular form the processes that lead to the individual's death in the healthcare setting.

For different reasons, there is the perception that healthcare personnel assume an indifferent attitude in the care of the patient with a prognosis of imminent death, that little information is given to the end-stage patient. At this moment of the 21st century, where physicians reflect on the importance of dignifying the dying process for the patient, it should be interesting to know the origin of the concept of death physicians have when training for their medical or surgical specialties. In this work, death is referred to in terms of physical loss of the patient in the context of medical practice.

Objective

To know the concept of death medical residents of different specialties have in a high-specialty hospital.

Method

An observational, descriptive, cross-sectional, prospective survey study was conducted during the month of February of 2014, where a questionnaire with dichotomous answers and a question with selection order, in a non-probabilistic sample, was anonymously and confidentially applied to voluntary 1st to 6th year medical residents of different medical or surgical specialties who were willing to participate in the study, which took place at the Dr. Gaudencio González Garza General Hospital of the Centro Médico Nacional (CMN) La Raza. Unanswered or partially answered surveys were excluded.

The concepts proposed in the survey to choose the subjects' definition of death were:

- Psychologism: Reality or life is restricted to inner or psychological issues, without having any influence on the surroundings or, in any case, leaving them in the background⁷.
- Religious: Religion soothes the anguish experienced by man when faced with life's cruelties and the unavoidable fate of death. It comforts them in misfortune and ensures a good end; it offers advice on how to behave in life, in order to act with justice. According to the sacred scriptures: Life is the transit towards eternal life^{8,9}.
- Biologism: Interpretation of society as a living organism. Theoretical position that claims that psychological, social and cultural phenomena depend on organic (biological) conditions. The body responds to a double causality: a physical one and a genetical one, this way, the body would not only reflect the physical parts, but the genetical history codified in its genes^{4,5,10}.
- Philosophical: Death is often considered as separation of body and soul. Therefore, death would imply the end of physical life, but not of existence. The belief on reincarnation is quite common¹¹.

Statistical analysis

Data were analyzed using the SPSS-PC, v.21. program (SPSS, Chicago, Illinois). For the univariate analysis, proportions were calculated for the study subjects; central tendency and dispersion measures were obtained with the Kolmogorov-Smirnov test to test

Table 1. The concept of death in medical residents by gender and year of specialty

	Psychologism n (%)	Biologism n (%)	Philosophical n (%)	Religious n (%)	Total n (%)
Gender					
Female	9 (64)	30 (70)	31 (60)	30 (46)	100 (57.5)
Male	5 (36)	13 (30)	21 (40)	35 (54)	74 (42.5)
Year of specialty					
1	5 (5)	24 (22)	36 (34)	42 (39)	107 (100)
2	3 (12.5)	4 (17)	5 (21)	12 (50)	24 (100)
3	2 (20)	4 (40)	2 (20)	2 (20)	10 (100)
4	0 (0)	1 (20)	1 (20)	3 (60)	5 (1)
5	2 (14)	5 (36)	3 (21)	4 (29)	14 (100)
6	2 (14)	6 (43)	4 (29)	2 (14)	14 (100)
Total	14 (8)	44 (25)	51 (30)	65 (37)	174 (100)

χ^2 . p = 0.09 and χ^2 . p = 0.375.

quantitative variables for normality. In addition, hypothesis tests were also performed for proportions by using the chi-square test, with a p-value < 0.05 being established as statistically significant. For the bivariate analysis, odds ratios for prevalence were calculated, in addition to 95% confidence intervals and the chi-square test. A p-value < 0.05 was established to be statistically significant.

Ethical aspects

The study was submitted to the Local Committee of Research on Health of the *Instituto Mexicano del Seguro Social* (IMSS). According to the criteria of the General Statute of Health Regulation, second title "On Ethical Aspects of Research in Human Beings", single chapter, article 17, part I, the protocol is considered as "Research with no Risk". And based on the Regulation that establishes the ruling for health investigation at the IMSS, "personnel engaged in health research activities at the IMSS should perform them in compliance with national and international ethics codes".

Results

Two-hundred surveys were handed to medical trainees of different medical and surgical specialties, 197 were received, out of which 23 were eliminated because they were incomplete or blank.

The total number of analyzed surveys was 174, from different medical or surgical specialties; the participants' mean age was 27 years, with upper and lower values of 23 and 39 years, respectively, and a standard

deviation of 5.4 years was obtained. One-hundred subjects (57.4%) were from the female gender, and 74 (42%), from the male gender. Most frequent place of birth was the D.F., followed by Jalisco and Puebla. There were 8 physicians from other countries such as Bolivia, Colombia, Peru and the USA.

With regard to time of having concluded bachelor's degree studies, the highest number, 59 (34%), ended between 2011 and 2012; time interval in this subject was from 1998 to 2012. Most physicians came from the Universidad Nacional Autónoma de México (28, 16.09%), followed by the Benemérita Universidad Autónoma de Puebla (17, 9.7%); Universidad Autónoma de México (15, 8.6%), the Instituto Politécnico Nacional with 10, and other Universities.

With regard to academic degree, 107 physicians (61.49%) were in the first year of specialty, with the rest distributed in specialties and sub-specialties, so that there were 24 on second year, 10 on third, 5 fourth, 14 fifth and 14 on sixth year. With regard to religion, 149/174 (85.6%) follow a religion and 25 do not have any. The predominant religion was Catholicism with 142 cases (81.6%) (Table 1).

With regard to the experience of being frequently confronted with death by specialty, 126 (72.4%) indicated they were, 48 claimed not to; this same experience in the personal sphere: 90/174 stated no having any experience of loss by death among their family and friends; 5 physicians had lost children; 3 had lost their father; 2 their mother; 4 siblings; the majority (70, 40.2%) had lost friends, and 4, their grandparents.

To the questions about the influence their medical training has on their concept of death, 134 physicians

Table 2. Effect of gender on the concept of death in medical residents

Questions	Female	Male	OR	95% CI		p*
Follows any religion	85 (57)	64 (43)	0.88	0.38	2.06	0.95
Are you frequently confronted with the decease of your patients?	70 (56)	55 (44)	0.80	0.41	1.58	0.64
Has your concept of death changed from the beginning of your career to the current moment?	59 (61)	38 (39)	1.36	0.74	2.49	0.39
Is there any relationship of your current concept of death with regard to what you have learned over the course of your career?	86 (65)	47 (35)	3.52	1.68	7.37	0.001
Influence of your religion on your concept of death	57 (60)	38 (40)	1.25	0.69	2.29	0.55

χ^2 (p < 0.05 regarded as statistically significant).

Table 1. Type of religion in medical residents according to country of origin

	Catholic	Christian	Adventist	Presbyterian	None	
Mexico	138 (81)	1 (0.6)	3 (2)	1 (0.6)	27 (16)	167 (100)
Bolivia	2 (100)					2 (100)
Colombia	3 (100)					3 (100)
Ecuador	1 (100)					1 (100)
Peru	1 (100)					1 (100)
United States					1 (100)	1 (100)
Total	142 (81)	1 (0.6)	3 (2)	1 (0.6)	28 (16)	175 (100)

χ^2 . p = 0.997.

(77%) answered that their notion of death is based on their medical training and only 40 stated otherwise. With regard to the influence of religion on the concept of death, 95 (54%) stated it has attribution and 79 (45%) denied such an influence. The concept of death was also found to be different than at the beginning of the medicine undergraduate studies in 97 cases (56%), whereas in 77 there was no change.

When the effect of gender was analyzed with regard to the concept of death in medical residents, females had 3.5 times more probabilities for their current concept of death not to be different from that acquired during the bachelor's degree studies (biologist), in contrast with males (p = 0.001), although females can have up to 36% higher probability of changing their concept of death over the course of their training (p = 0.39), as well as 25% higher probability of religion influencing on their concept of death (p = 0.55); these data did not reach statistical significance (Table 2).

In the inquiries on the concept of death medical residents have according to gender, females predominantly

selected the biologist (70%), psychologist (64%) and philosophical (60%) concepts, whereas 54% of men were found to have a religious concept of death. These conceptual differences with regard to gender did not reach statistically significant difference (p = 0.09) (Table 1).

As for the year of specialty, first-year residents showed predominance towards the religious conception of death (39%), during the second year of specialty training, religious thought keeps predominating (50%); as the medical residence advances, trainee physicians modify their reflection towards biologist thought, with 36% at 5th grade and 43% at the 6th year of specialty. These differences were not significant (p = 0.375).

When the analysis of the medical residents' religious paradigm and country of residence was made, 81% of Mexican physicians described themselves as Catholics, as well as the Latin American physicians who participated in the survey; 100% are Catholics (p = 0.997) (Table 3).

Discussion

In the healthcare setting, the attitude towards death varies significantly according to the healthcare professional's age, cultural background, religion, spiritual aspects and most certainly by his/her training as a physician. The results of this work showed the age average of the physicians to be 27 years, where 61% were at the first year of their specialty training and 85.6% follow a religion, predominantly Catholicism, and most of them, 72%, are training in a specialty where they are frequently confronted with death; 95 physicians expressed that their concept of death is influenced by religion, rather than by their medical training.

The experience of physicians and healthcare personnel on the patients' process of dying has even been considered as inherent to the fact of being a doctor or nurse; additionally, with the advances in diagnostic and therapeutic technologies, longer survival has consequently favored the patients, inadvertently leading to extreme situations, even to therapeutic obstinacy by physicians and patients; at the same time, and although the thin line that separates it from defensive medicine is hard to distinguish, it is important to demarcate the influence religion might have on these behaviors.

In general, death is not a common topic of discussion in society; in the professional sphere of physicians, it is not usual for healthcare professionals to reflect on death, it is common that they avoid speaking about it with their patients⁷. Under the paternalist aspect and within a space where there is a certain familiarity with the experience of death, the physician has assumed an attitude towards it; either to ignore it, or to evade or minimize its dimension.

Death has been found to be defined in different forms and focuses, with absolutely idealistic, religious or biological approaches¹²⁻¹⁴. In this study, the authors found that, with regard to gender, the female physician has 3.5 times more probability for her concept of death to be related to her medical training compared with the male sex, where the influence is religious, and even when there was no statistical significance, there is a clear conceptual difference.

This research, addressing a complex subject and within the reflection about the concept of death in the setting of the medical trainee, tried to find out not only the ethical-philosophical point of view, but also the location of the biological and religious concept based on essential and individual features, since the biological concept of irreversible loss of the human organism function as a whole has been difficult and controversial,

especially today, nested in issues on organ donation and influence of religion.

Medical responsibility tends to adjust to the circumstances; practical medicine has now a multidisciplinary perspective. Each physician as a person assumes a position based on his/her religious beliefs and professional context, which decisively influences on the way to cope with the process of dying of his/her patient. With the results, it was also possible to identify that there was transformation of the influence on the concept of death; in first-year physicians, religious influence stood up, whereas in fifth- and sixth-graders, it was the biologicistic basis. With regard to interpretations of the fact of death, we could consider that the physician has his concept defined as a biological phenomenon, which is based on his/her professional training but, as we found in this study and not far from what's published in literature, age, as well as religious and philosophical attitude, have also an influence^{15,16}.

The analysis of this work drives us to consider the new ethical problems arising at the end of life, such as euthanasia, organ transplantation, palliative medicine, informed consent and advance directive; all this within the framework of clinical ethics in the everyday practice of the human being in his role as healthcare professional¹⁷, where competences acquired in academical training are not only knowledge and techniques, but they are fused with ethical compromise and values¹⁸.

The authors sought to know the physicians' different experiences expressed by the answers and related to professional training and to identify the religious or philosophical influence there may be on their thought about death, regardless of this being basically a concept dealt with as a biological phenomenon and immerse in the first years of the 21st century, determined by technological and therapeutic advances.

Concurrently, the physician is involved with the promotion of the informed consent in all its aspects, including advance directives, organ donation, transplantation; hence the importance of knowing how, in this case medical trainees of both clinical and surgical areas, do think and act when confronted with the death of their patients. With the data obtained in this work it can be considered, as other authors have also noted, that contact with suffering and death, and even feeling involved, are factors that intervene on their personal and professional sphere¹⁹.

The authors consider that the limitations of this work were in particular the characteristics of the academic group that participated, since the first year of specialty training was predominant; ideally we should have

compared them with a larger number of residents from last year of specialty and sub-specialty training in order to find statistical significance with the size of the sample we worked with.

Conclusion

The results of the survey show the influence religion generates on the thought about death in medical trainees and that the biologicistic concept was not predominant. As the physician advances on his/her training, the influence is reversed. The concept about death and the influence on its conception appeared to be different between male and female physicians.

The personality of the physician as a human being is versatile; it is related to experiences as a professional, as a human being, as member of a dynamic society, incorporated to the anthropology of death, where it remains amidst magic and myth. Based on this, we are able to identify barely a facet of the influences on the medical trainee's concept of death.

Acknowledgements

To all medical residents who collaborated in the conduction of this study, for their time and willingness.

Funding

This study did not require any funding.

References

1. Lomnitz C. La idea de la muerte en México. 1a reimpresión. México: Ed. FCE; 2011.
2. Blanck CF, Cerejido M. La vida, el tiempo y la muerte. 5a reimpresión. México: Ed. FCE; 2011.
3. Ocampo MJ, Figueroa S, García OA, et al. *Laborat acta*. 1998;10(3): 93-9.
4. Evaluación de competencias profesionales en la carrera de Médico Cirujano de la UNAM. [consultado 17 julio 2013]. Disponible en: <http://www.facmed.unam.mx/eventos/competencia/index.html>.
5. Perfil de egreso de la carrera de Médico Cirujano de la UNAM. [consultado 17 julio 2013]. Disponible en: <http://www.facmed.unam.mx/eventos/competencia/index.html>.
6. Levinas E. Dios, la Muerte y el tiempo. 4a ed. España: Ed. Cátedra. Grupo Anaya S.A.; 2008.
7. Sevilla-Godínez H. Tanatoética: aportes de la filosofía ante la muerte. *Rev Med Inst Mex Seguro Social*. 2009;47:227-30.
8. Muriá Vila I. La concepción religiosa de la muerte. Un estudio evolutivo. [consultado 9 dic. 2012]. Disponible en: <http://www.revista.unam.mx/vol.1/art2/>.
9. Hernández Arellano F. El significado de la muerte, *Revista Digital Universitaria*. [consultado 9 dic. 2012]. Disponible en: <http://www.revista.unam.mx/vol.7/num8/art66/int66.htm>.
10. Klarsfeld A, Revah F. *Biología de la muerte*. 1a ed. España: Ed. Complutense; 2002.
11. Bateson W. El determinismo biológico. [consultado 2 dic. 2012]. Disponible en: http://bidi.unam.mx/libroe_2007/1129825/A06.pdf.
12. Definición de muerte - Qué es, Significado y Concepto. [consultado 7 dic. 2012]. Disponible en: <http://definicion.de/muerte/#ixzz2DxSyNk7P>.
13. Ortuzar MG. La definición de Muerte desde las perspectivas filosóficas de Bernard Gert y Daniel Wikler. *Revista de Filosofía y Teoría Política*. 1996;31:112-24. [consultado 5 abril 2013]. Disponible en: www.memoria.fahce.unlp.edu.ar.
14. Castro BI. Concepciones ético filosóficas de la Muerte. *Correo científico médico de Holguín*. 1999;3. [consultado 29 sept. 2013]. Disponible en: <http://www.cocmed.sld.cu/no33/n33ori1.htm>.
15. Castro BI. Concepciones ético filosóficas de la muerte. [consultado 5 abril 2013]. Disponible en: <http://www.cocmed.sld.cu/no33/n33ori1.htm>.
16. Ferrater Mora J. *Conceptos de Muerte*. Diccionario de Filosofía, 1ª ed. España: Ed Ariel; 2009.
17. Kuthy PJ. Compromiso social del médico, visto desde su formación. *Rev Inst Nal Enf Resp Mex*. 2005;18:199-205.
18. Durante MI, Martínez GA, Morales LS, et al. Educación por competencias: de estudiante a médico. *Rev Fac Med UNAM*. 2011;54:42-50.
19. Escribá AV, Muñoz B. Exigencias laborales psicológicas percibidas por médicos especialistas hospitalarios. *Gac Sanit*. 2002;16:487-96.