Revista ARACÊ
ISSN: 2358-2472

PERCEPTION OF PRIMARY CARE PHYSICIANS IN CAMPINA GRANDE – PB ABOUT FILLING OUT THE DEATH CERTIFICATE

https://doi.org/10.56238/arev6n2-077

Submitted on: 08/09/2024 **Publication date:** 08/10/2024

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ABSTRACT

The death certificate (DC) is an official document of an ethical, legal and epidemiological nature, nationally standardized and feeds the Mortality Information System (SIM) of the Ministry of Health (MS). Primary care professionals are classified in this context as assistant physicians and must be prepared to properly fill out the DCs. Failures in filling out the death certificate or even a misunderstanding of the data to be reported in this document highlight a serious problem: the academic limitation of medical courses in training professionals minimally capable of filling out that document. The objective of this study is to understand whether the primary care medical professional in the city of Campina Grande has the minimum competencies to fill out the death certificate. Questionnaires with 14 sociodemographic questions and 16 cognitive questions were applied, prepared in accordance with the Manual of Instructions for Filling Out the Death Certificate of the Ministry of Health. A total of 46 primary care physicians from Campina Grande – PB participated in the research. The overall performance of the physicians showed a good average of correct answers (69.55%), those who had between 1 and 5 years of graduation had better performance (71.09%). However, for knowledge considered indispensable, the performance was around 48.3%. The fact that Primary Health Care (PHC) physicians also work in other services, such as urgent and emergency services, was not shown to be a facilitating factor for filling out the DC.

Keywords: Death Certificate. Primary Health Care. Mortality.

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ISSN: 2358-2472

INTRODUCTION

The death certificate (DC) is a formal document, distributed by the Health Surveillance Secretariat (SVS), linked to the Ministry of Health (MS), which is a tool with the scope of feeding the Mortality Information System (SIM).

Thus, the official document in question is an instrument of fundamental importance for the epidemiological, sanitary and legal dimensions, and its completion is of equal value. It should be noted that in our legal system, the act of filling out a DC is the exclusive responsibility of the physician (Brasil, 2018).

According to the Instruction Manual for filling out the Ministry of Health (Brasil, 2022), the death certificate is a standardized instrument, printed with a single numerical sequence, forming sets of three self-copy copies, with different colors (white, yellow, and pink), each with a different destination.

Likewise, the control of numbering, as well as the issuance and distribution of forms to the State Health Secretariats, is the exclusive responsibility of the Ministry of Health, by the SVS, and the state health secretariats are responsible for transferring the forms to the Municipal Health Secretariats (Brasil, 2022).

Da Silva *et al.* (2016), states that DC is seen by physicians only as a legal requirement for burial, rarely seen as a source of data on the health of a population, which can culminate in poor completion.

Failures in filling out the death certificate or even a misunderstanding of the data to be reported in this document highlight a serious problem: the academic limitation of medical courses in training professionals minimally capable of filling out that document.

Despite the widely disseminated knowledge about the value of correctly filling out the death certificate, unsatisfactory records are evidenced that cause inconsistency in the epidemiological data collected (Silva *et al.*, 2016).

Mendonça, Drumond and Cardoso (2010) state that this fragility of information can be justified by several factors, mainly related to the academic training of professionals and access to informative documents on proper completion.

Costa *et al.* (2020) denotes that when comparing the information contained in the DC of suicide cases and in the data referring to these deaths in DataSUS, several inconsistencies could be observed, which could occur intentionally due to issues of moral values, economic interests (such as cases of conditions for receiving insurance), misunderstanding of the importance of correct registration, or even unintentional error.

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Saito *et al.* (2021), goes further and infers that many medical professionals are unaware of the real ethical, legal, and epidemiological implications of improper, incomplete, or illegible completion of the death certificate.

The deficient attested information is due to the negligence of physicians regarding difficulties in basic aspects of the document, such as the chronology and coherence of the clinical events involved in the cause of death, the completion of fetal and maternal deaths without assistance, and the indication of external causes in violent deaths (Lucena *et al.*, 2014).

In this context, physicians working in Primary Health Care (PHC) should have as their primary competence to declare deaths from known causes and, preferably, from patients already monitored by the reference health team, except, of course, those external causes that are the responsibility of the Institutes of Forensic Medicine (IML).

Thus, envisioning a current scenario in which the training of medical professionals still lacks more knowledge about filling out the DC, combined with the fact that this act is exclusively medical, an important question was fostered: does the primary care physician have technical and practical competence to fill out the death certificate?

The main scope of this work is the need to try to answer the question raised above, in view of the real and current gap observed in the training of physicians as the only professionals with the legal duty to fill out this very important document.

THEORETICAL FRAMEWORK

The death certificate is an official document of an ethical, legal and epidemiological nature, nationally standardized and feeds the Mortality Information System (SIM) of the Ministry of Health (MS). França (2017) wisely attests that the purpose of the DC is to determine the end of the person in the legal world and to promote statistical and health data of interest to Public Health.

The doctrinaire Leme (2010) states that the DC is the indispensable instrument for the Civil Registry Office to register the death, a legal document, which proves the end of the person's life, with which the body is buried, an inventory is initiated, a will is fulfilled, the receipt of life insurance is requested, etc.

From 1976 onwards, the Ministry of Health adopted a DC model used throughout the national territory, and the data captured through that instrument are fundamental for the

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production of mortality statistics, notably for the analysis of the health situation, surveillance, monitoring, and evaluation of public policies (Brasil, 2022).

Likewise, from the legal point of view, the death certificate is the appropriate document, as provided for in the Public Records Law – Law No. 6,015, of December 31, 1973, for the drafting, by the Civil Registry Offices, of the Death Certificate, which is indispensable for the legal formalities of burial and for the beginning of succession processes (Brasil, 1973).

From then on, the control system enabled the Ministry of Health to introduce the DC, a national model of certificate that conformed medical diagnoses to the nomenclature of the International Code of Diseases (ICD), following the recommendation of the World Health Organization (Lima; Carrieri, 2020).

From this information, statistics related to several variables on mortality are developed, which constitute an essential tool for the programming and evaluation of epidemiological, teaching and research actions and investigations, being, even today, the most used data in statistics focused on health (Silva *et al.,* 2013).

Currently, a common failure can be observed in medical practice regarding the completion of death certificates. Professionals in this area of health commonly find it difficult not only to fill it out, but also to understand the importance that this official document holds.

Failure to content and complete the death certificate may be due to inadequate completion by physicians, including a failure to distinguish between the underlying cause of death and the terminal event (Degani *et al.*, 2009).

The quality of the information contained in death certificates is not uniform among the states, with a high proportion of non-informative causes, recorded in SIM as the underlying cause of death (Naghavi *et al.*, 2010).

According to Ishtani *et al.* (2019), among the factors related to this low accuracy has been pointed out the lack of training on filling out the DC, which can be improved with educational initiatives.

In Brazil, several initiatives have been developed, such as training courses and workshops for physicians in hospitals and distribution of instruction manuals, with the aim of making these professionals aware of the importance of filling out the DC for public health.

The frequent errors found in the completion of death certificates demonstrate, for the most part, a relative negligence on the part of the medical profession, determining the loss

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of data relevant to the national health sector, which determine losses to effective policy actions aimed at the sector (Silva *et al*., 2013).

The first two Faculties of Medicine in Brazil – Bahia and Rio de Janeiro – officially included Forensic Medicine as a compulsory discipline from 1832 onwards; in the Medicine course, its teaching was proposed by Rui Barbosa, who managed to approve in the Chamber of Deputies a Decree creating the Chair of Legal Medicine in Law Schools throughout the country, starting in 1891 (França, 2017).

Thus, it is verified that the discipline necessary for the construction of learning for the proper completion of the death certificate is almost as distant as the creation of the medical course itself. It is also noted that the curricular bases of medical courses are still insufficient for an excellent preparation or even minimally effective to encourage a physician who leaves the academy with preparation to sign a document of a very important nature.

It is not uncommon for physicians, especially those who have recently graduated or have just graduated since graduation, to be faced with a DC for the first time when they find themselves in the real contingency of filling it out. Consequently, mistakes occur and failures are not filled in due to probable lack of knowledge. According to Silva *et al.* (2013), this is related to the lack of specific information in undergraduate curricula and continuing medical education.

Primary health care has its own principles and attributes, which are first access, care coordination, longitudinality and comprehensiveness, cultural competence, and the family approach (Brasil, 2017). In this vein, in recent decades Brazil has been experiencing an epidemiological transition, with the consequent natural aging of the population. In addition, the explosion of deaths from external causes, especially in the male population, has caused a considerable increase in the issuance of death certificates.

In Family and Community Medicine (FCM), training for palliative care is provided for in the Competency-Based Curriculum, and the preparation and guidance of family members and patients regarding measures related to death are considered essential competencies; knowledge of the importance of after-hours care for serious complications and deaths; and the provision of death certificates (Dias; Scallop; Gomes, 2020).

It is not uncommon for primary care professionals to be faced with the scenario of death in their daily lives, and must be prepared to care for elderly patients submitted to palliative care at home and who may invariably experience a non-hospital death.

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Dias, Viera and Gomes (2020), adduce that in all scenarios of contact between the health professional and the dying process, perhaps the most objective encounter is the visit to declare death, when it occurs at home.

Thus, it can be stated that the correct completion of the death certificate is currently a really challenging task for all medical professionals. Considering that most physicians find some type of difficulty in filling out certain fields of the DC, this study aims to understand whether the medical professional of primary care in the city of Campina Grande has the minimum competencies to pursue this purpose.

METHODOLOGY

TYPE OF STUDY

Cross-sectional, observational, analytical study carried out from October 2023 to January 2024.

STUDY SITE AND FEASIBILITY

Primary care professionals in the municipality of Campina Grande – PB.

SAMPLE

The target audience was physicians from the Family Health Strategy (FHS) in the municipality of Campina Grande – PB, as well as professionals who are part of primary care programs such as Mais Médicos, Médicos pelo Brasil and residents of the Family and Community Medicine program. Naturally, more accessible members of the population were selected, that is, professionals who had greater proximity and dexterity with the use of digital social networks. Therefore, it was a non-probabilistic and convenience sample. The form was sent via WhatsApp social network through a link on the *Google Forms platform* to members who are part of the group of doctors of the ESF (Family Health Strategy) of Campina Grande – PB.

INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria, which were: physicians who work in Primary Health Care who worked in the municipality of Campina Grande and who are part of a group on the WhatsApp digital platform of PHC physicians in the municipality of Campina Grande – PB. Physicians who did not answer the questionnaire were excluded from the survey.

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INSTRUMENTS FOR DATA COLLECTION

The research instrument consisted of two parts:

i) Sociodemographic questionnaire;

ii) Cognitive questionnaire with questions dealing with subjects pertinent to general and indispensable knowledge of the importance, composition and completion of the death certificate.

The first part had 14 (fourteen) items that allowed obtaining data about the profile of the medical professional who makes up the primary care in the city of Campina Grande, in addition to information about the training and performance of the professional so that they could be associated with the data obtained in the second part of the questionnaire.

The second part, composed of 16 (sixteen) cognitive questions prepared by the author of the study, based on the Manual of Instructions for Filling Out Death Certificates (Brasil, 2022), aims to analyze the competencies that the medical professional has to fill out the death certificate. The first 12 items contained general notion questions and the last 4 dealt with knowledge indispensable to filling out the DC – 02 questions intended for filling out a Death Certificate according to a clinical case presented, in addition to 02 multiple choice questions. Thus, data were prepared to understand the level of qualification that the professional has for the preparation of that document.

The complete instrument was made available to participants through the Google Forms digital platform.

DATA COLLECTION PROCEDURES

The questionnaires were collected through a link that directs the answers to *Google Forms* in the survey's Google account.

According to the article by De Paula (2015), the use of virtual protocols for data collection in health research can be useful by reducing the cost involved in the preparation of the material and with its quotation and correction for academic practices.

METHODOLOGY FOR DATA ANALYSIS

The questionnaire was applied by sending the link to the *Google Forms platform*, individually and without consulting other study materials or equipment that would enable the search for information. No doubts were clarified as to the interpretation of the statements and alternatives, as the study considered the interpretation as belonging to the evaluation

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and inherent to the nature of the instrument used, thus avoiding any interference from the researchers.

The data were stored in a 2010 Excel spreadsheet, using tables with independent variables and with a specific outcome of two variables (time since graduation and whether the professional was also on duty).

Descriptive statistics were used for the analysis and organization of the research data, with the presentation of simple, absolute and percentage frequencies for categorical variables, and subsequent organization of the results in tables. Subsequently, the chi-square adherence test was applied to verify the adequacy of the probabilistic model to the research data. In addition, to verify possible associations between the variables under study, the Chi-square test and Fisher's exact test were used in cases where the expected frequencies were less than 5 (Siegel, 2006), considering a significance level of 5% ($p<0.05$). All analyses were performed with the aid of the R statistical software (R CORE TEAM, 2023).

ETHICAL ASPECTS

The study in question is in accordance with the standards and guidelines set forth in Operational Norm No. 001/2013 – Regulatory Guidelines for Research Involving Human Beings and Resolution 466, of December 12, 2012, of the National Health Council (CNS), which provides for studies involving human beings.

The project was approved by the Research Ethics Committee (CEP) of the State University of Paraíba (UEPB), under CAAE Protocol: 72936123.5.0000.5187, with an approval date of 10/18/2023.

CONFLICT OF INTEREST

There is no conflict of interest and for the discussion of the data, the theoretical framework freely available in the literature will be used.

RESULTS AND DISCUSSION

The questionnaire was sent via the WhatsApp social application from 11/17/2023, and a period of two weeks is expected for possible responses. The access link was sent to the group of physicians from the ESF of Campina Grande, which had a total of 124 people,

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obtaining a response from 46 medical professionals, that is, 37.09% of the guests were interested in answering the questionnaire.

The age of the participants ranged from 24 to 59 years of age, with the age of 27 years having the highest prevalence (15.2%) among the interviewees and a mean age of 33.5 years. The age of most of the interviewees was between 27 and 36 years old (47.9%), and it was possible to observe a considerable prevalence of young physicians (Table 1).

Table 1: Age of the participants.

IDADE	
Média	33.5
Maior	59
Menor	24
Desvio padrão	10.2

SOURCE: authors, 2024.

Young professionals are increasingly observed in the Family Health Strategy (FHS), which is justified by the growing coverage of this strategy, resulting in an increase in job vacancies associated with curricular changes in health courses, with disciplines and internships aimed at consolidating the Unified Health System (SUS) and Primary Health Care (PHC) and competitive salaries in the market and with professional appreciation (Santos et al., 2019).

It was observed that no elderly person answered the questionnaire, which can probably be explained by the difficulty with the use of virtual communication mechanisms, such as digital social networks.

With a minimum time of 1 year and a maximum of 44 years since graduation, most participants are graduates between 1 and 5 years – 24 respondents (52.1%). Those who have completed 10 or more years of graduation correspond to 26.1% of the total number of respondents (Table 2).

As described earlier, most participants graduate between a time lapse of 1 and 5 years. In addition to these, those who graduated less than a year ago (10.9%) formed the largest share of respondents, corresponding to 63% of the total, denoting that the largest portion of participants is composed of recent graduates and professionals who are at the beginning of their careers.

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Regarding the time since graduation, most professionals have a relatively short time, from one to five years. This can be explained by the fact that many newly graduated doctors, in search of experience, choose to seek a job opportunity in the public service – in this case, with the Family Health Strategy (Barbosa et al., 2019).

Table 2: Length of graduation of the interviewees.

TEMPO DE GRADUAÇÃO	
1 ano ou menos	5 (10.9%)
1 a 5 anos	24 (52.1%)
5 a 10 anos	5 (10.9%)
10 anos ou mais	12 (26.1%)
Total	**46 (100.0%)**

SOURCE: authors, 2024.

Regarding the specialty, 50% of the interviewees (n=23) have some medical residency, and the number of professionals with a specialty is listed below: Family and Community Medicine (20), Internal Medicine (3), Pediatrician (1), Gynecology-Obstetrics (1), in progress (1) and others (1).

What can be noted is that the majority of professionals interviewed either do not have medical residency or are family and community doctors, corresponding to a total of 43 people (93.4%).

As for the time of work in PHC, it is related to the variable of the time since training. There is a profile of newly graduated physicians with a short period of experience, which corroborates the study that points to a profile of recent medical graduates who usually work in the Family Health strategy as their first professional experience, until they are approved in medical residency programs (Barbosa et al., 2019).

About 63% of the interviewees have been working in Primary Care (PHC) for less than 05 years (n=26), between 05 – 10 years in PHC, 7 participants (15.2%) and 21.7% (n=10) for ten years or more.

In addition, it was found that 65.2% (n=30) concentrate their area of activity only in primary care, a significantly lower number, about 16 people (34.8%) also work as on-call physicians in urgent and emergency services or in tertiary health care.

Regarding safety in filling out the death certificate, 58.7% of the professionals stated that they do not feel safe when faced with situations in which they need to fill out a death

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certificate. This scenario is in line with the fact that the absolute majority (80.4%) demonstrated that their academic training was insufficient to provide the necessary support for a filling out with confidence.

It is understood that the primary health care medical professional is a fundamental character among those who must fill out the DC, being mentioned by name by the Ministry of Health's Filling Manual (Brasil, 2022) when natural death without medical assistance.

In this understanding, it was found that most professionals (54.3%) who work in PHC did not even fill out a Death Certificate.

Taking into account that the total number of deaths, according to DATASUS (Brazil, 2023), in 2022 in the city of Campina Grande was 3443, and that of these 2364 occurred in a hospital environment or health establishments and that 1032 happened on public roads or at home where the person lived, about 29.97% of all deaths that occurred in this city should have been signed by assistant professionals, who in most cases is the PHC professional to whom the person was being assisted (Table 3).

Table 3: Number of deaths that occurred in Campina Grande – PB in 2022.

Quantidade de óbitos em 2022 em Campina Grande - PB		
	N	%
Em hospital ou est. de saúde	2364	68.66
Domicílio ou via pública	1032	29.97
Ignorado ou outros	47	1.36
Total	3443	100

Source: DataSUS (Brazil, 2023).

In this way, it is observed that the flow of filling out the death certificates of people who died at home or on public roads is being directed directly to other professionals or establishments such as district notary offices.

About 95.7% (n=44) of the interviewees stated that they felt the need to have more technical knowledge to fill out a DC, and about 56.5% of the interviewees (n=26) stated that they consult manuals, more experienced colleagues or use applications when filling out a death certificate.

Ishitani *et al.* (2017), in communion with several authors, state that the development of educational strategies such as workshops, educational interventions, seminars, online

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and instructive tutorials increased the accuracy of the cause of death or provided an overall improvement in the certification of causes of death.

Taking into account all the assertions analyzed, the overall percentage of correct answers was 69.55% (approximately 11.13 correct answers out of the 16 proposed questions), which is considered a good performance for all professionals. Da Silva *et al.* (2016), in a similar study, analyzed the performance of undergraduate students, residents, and professors at a medical school in Rio Grande do Norte, finding a very similar overall average of correct answers (68.26%).

Analyzing the questions considered to be of general knowledge (from item 1 to item 12), a general level of correct answers of 76.6% was found. Similarly, the performance of professionals and undergraduate students of the aforementioned work obtained a level of assertiveness between 70.00% and 77.88% among the categories analyzed (Da Silva et al., 2016).

When more tricky questions considered to be indispensable for filling out the death certificate, contained between items 13 to 16, the level of correct answers was 48.3%. In addition, when the two assertions that required the professional to correctly fill out a DC in a given hypothetical situation of clinical cases were analyzed, the level of assertiveness was even lower (46.7%).

Similarly, Da Silva et. al. (2016) found very similar numbers, around 49.54% of correct answers for a questionnaire applied to undergraduate medical students, residents and professors at the Federal University of Rio Grande do Norte (UFRN), for the questions classified as indispensable knowledge for filling out the DC.

When comparing the groups by time of graduation, it is found that the highest average of correct answers was concentrated among those who had graduated between 1 and 5 years (71.09%), very similar to those who have been working in PHC for more than 10 years (69.31), however, the difference for newly graduated professionals (65%) and for those who have already been in the job market between 5 and 10 years (63.75%) did not show a difference in performance (Table 4).

Likewise, the average number of correct answers taking into account the statement that the professional worked, in addition to primary care, also as an on-call physician, was also not significant, and those who worked complementarily in urgent/emergency on-call services (69.14%) performed practically the same as those who worked exclusively in PHC (69.79%), as shown in Table 5.

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Table 4: Average number of correct answers according to graduation.

Média de acertos pelo tempo de graduação		
	N (%)	Desvio Padrão
Geral	11,13 (69,55%)	±13.08
1 ano ou menos	10.4 (65%)	±11.35
1 a 5 anos	11.37 (71.09%)	±14.28
5 a 10 anos	10.4 (63.75%)	±5.22
Mais de 10 anos	11.33 (69.31%)	±13.93

Source: authors, 2024.

Table 5: Average number of correct answers according to the professional's declaration of being on duty.

Média de acertos plantonista		
	N (%)	Desvio Padrão
Geral	11,13 (69,55%)	±13.08
Sim	11.06 (69.14%)	±15.04
Não	11.16 (69.79%)	±12.18

Source: authors, 2024.

Table 56 shows the percentage of correct answers, which was associated with the variables "time since graduation from graduation" and whether the professional, in addition to PHC, also worked as an "on-call doctor". To verify possible associations between the variables under study, the Chi-square test and Fisher's exact test were used in cases where the expected frequencies were less than 5 (Siegel, 2006), considering a significance level of 5% ($p<0.05$).

The variables used for association with the data obtained, as previously described, were raised by the author of the present study as a way of trying to observe whether the time of work in PHC, that is, the acquisition of new experiences and clinical cases experienced by the professional, would be correlated with the acquisition of a set of skills that could foster a better completion of the death certificate.

Likewise, the variable "declaration of performance as an on-call physician" was associated in the sense that the professional's performance in a scenario that was in frequent contact with cases that required the completion of a DC could provide the professional with skills related to a better execution in the formulation of this document.

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Table 6: Correlation between percentage of correct answers x time since graduation of the undergraduate program.

Variáveis independentes		Variáveis de Desfecho: Tempo de formatura da graduação				
		1 a 5 anos	1 ano ou men	10 ou mais an	5 a 10 anos	p-valor
		N (%)	N (%)	N (%)	N (%)	
Item 1	Acertou	19 (54.3%)	5 (14.3%)	7 (20%)	4 (11.4%)	0.3177
	Errou	5 (45.5%)	0 (0%)	5 (45.5%)	1 (9.1%)	
Item 2	Acertou	22 (53.7%)	5 (12.2%)	10 (24.4%)	4 (9.8%)	0.6323
	Errou	2 (40.0%)	0 (0%)	2 (40%)	1 (20.0%)	
Item 3	Acertou	24 (53.3%)	5 (11.1%)	11 (24.4%)	5 (11.1%)	0.4782
	Errou	0 (0%)	0 (0%)	1 (100%)	0 (0%)	
Item 4	Acertou	11 (61.1%)	2 (11.1%)	3 (16.7%)	2 (11.1%)	0.6756
	Errou	13 (46.4%)	3 (10.7%)	9 (32.1%)	3 (10.7%)	
Item 5	Acertou	19 (61.3%)	3 (9.7%)	6 (19.4%)	3 (9.7%)	0.2801
	Errou	5 (33.3%)	2 (13.3%)	6 (40.0%)	2 (13.3%)	
Item 6	Acertou	18 (48.6%)	3 (8.1%)	12 (32.4%)	4 (10.8%)	0.1281
	Errou	6 (66.7%)	2 (22.2%)	0 (0%)	1 (11.1%)	
Item 7	Acertou	19 (54.3%)	5 (14.3%)	7 (20%)	4 (11.4%)	0.3177
	Errou	5 (45.5%)	0	5 (45.5%)	1 (9.1%)	
Item 8	Acertou	23 (54.8%)	3 (7.1%)	11 (26.2%)	5 (11.9%)	0.1315
	Errou	1 (25%)	2 (50%)	1 (25%)	0 (0%)	
Item 9	Acertou	21 (53.8%)	4 (10.3%)	11 (28.2%)	3 (7.7%)	0.3163
	Errou	3 (42.9%)	1 (14.3%)	1 (14.3%)	2 (28.6%)	
Item 10	Acertou	20 (48.8%)	5 (12.2%)	11 (26.8%)	5 (12.2%)	0.9025
	Errou	4 (80%)	0 (0%)	1 (20%)	0 (0%)	
Item 11	Acertou	9 (47.4%)	1 (5.3%)	9 (47.4%)	0 (0%)	0.0150
	Errou	15 (55.6%)	4 (14.8%)	3 (11.1%)	5 (18.5%)	
Item 12	Acertou	14 (48.3%)	3 (10.3%)	8 (27.6%)	4 (13.8%)	0.8705
	Errou	10 (58.8%)	2 (11.8%)	4 (23.5%)	1 (5.9%)	
Item 13	Acertou	11 (61.1%)	2 (11.1%)	4 (22.2%)	1 (5.6%)	0.8036
	Errou	13 (46.4%)	3 (10.7%)	8 (28.6%)	4 (14.3%)	
Item 14	Acertou	13 (52.0%)	2 (8.0%)	8 (32%)	2 (8%)	0.7075
	Errou	11 (42.4%)	3 (14.3%)	4 (19.0%)	3 (14.3%)	
Item 15	Acertou	17 (50.0%)	4 (11.8%)	10 (29.4%)	3 (8.8%)	0.8009
	Errou	7 (58.3%)	1 (8.3%)	2 (16.7%)	2 (16.7%)	
Item 16	Acertou	8 (66.7%)	0 (0%)	3 (25.0%)	1 (8.3%)	0.5756
	Errou	16 (47.1%)	5 (14.7%)	9 (26.5%)	4 (11.8%)	
	Total	**24**	**5**	**12**	**5**	**46**

SOURCE: authors, 2024.

By appreciating the results in categories, as previously mentioned, it was found that the means of correct answers for those professionals divided under the variable of time since graduation was statistically relevant (p-value = 0.0150) only in Item 11 of the cognitive questions presented, as specifically described in Table 7.

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Table 7: Correlation between percentage of correct answers in Item 11 x time since graduation from graduation.

Variáveis independentes	Variáveis de Desfecho: Tempo de formatura da graduação				
Item 11	1 a 5 anos N (%)	1 ano ou menos N (%)	10 ou mais anos N (%)	5 a 10 anos N (%)	p-valor
Acertou	9 (47.4%)	1 (5.3%)	9 (47.4%)	0 (0%)	0.0150
Errou	15 (55.6%)	4 (14.8%)	3 (11.1%)	5 (18.5%)	
Total	**24**	**5**	**12**	**5**	**46**

SOURCE: authors, 2024.

Contrary to what was intended to be verified, in this scenario, professionals with more time in the labor market performed below those who had recently graduated or with a shorter gradation time, notably in an item of general knowledge about filling out the DC, with significant statistical relevance.

In addition, when the levels of correct answers to the questions asked by the interviewees were associated with the variable "statement on duty" by the professionals, it was denoted that there was only one statistically relevant association (p-value = 0.0430), particularly in Item 2, shown in table 8.

In accordance with what was deduced, professionals who declared themselves to be on-call physicians had a statistically higher assertiveness index compared to professionals who worked only in PHC, as observed specifically in Table 9.

Analyzing the results in general, it is found that the overall performance of the interviewees was satisfactory, however, when the items that require indispensable knowledge to fill out the death certificate are particularly appreciated, a generalized deficiency of the medical professional is noted. These results denote an approximation with other studies, in the sense that in the question referring to the clinical case in which the alternative that pointed to the correct causes of death should be marked, the average correct answer in all the categories evaluated was considerably small (Da Silva et al., 2016).

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Table 8: Correlation between percentage of correct answers vs. being on duty.

Variáveis independentes		Variáveis de Desfecho: Plantonista		
		Não N (%)	Sim N (%)	p-valor
Item 1	Acertou	21 (60.0%)	14 (40.0%)	0.3406
	Errou	9 (81.8%)	2 (18.2%)	
Item 2	Acertou	29 (70.7%)	12 (29.3%)	0.0430
	Errou	1 (20.0%)	4 (80.0%)	
Item 3	Acertou	29 (64.4%)	16 (35.6%)	0.9876
	Errou	1 (100.0%)	0 (0%)	
Item 4	Acertou	10 (55.6%)	8 (44.4%)	0.2699
	Errou	20 (71.4%)	8 (28.6%)	
Item 5	Acertou	18 (58.1%)	13 (41.9%)	0.1945
	Errou	12 (80.0%)	3 (20.0%)	
Item 6	Acertou	24 (64.9%)	13 (35.1%)	0.9769
	Errou	6 (66.7%)	3 (33.3%)	
Item 7	Acertou	19 (54.3%)	5 (14.3%)	0.3177
	Errou	5 (45.5%)	0 (0%)	
Item 8	Acertou	28 (66.7%)	14 (33.3%)	0.6019
	Errou	2 (50.0%)	2 (50.0%)	
Item 9	Acertou	27 (69.2%)	12 (30.8%)	0.2162
	Errou	3 (42.9%)	4 (57.1%)	
Item 10	Acertou	28 (68.3%)	13 (31.7%)	0.3246
	Errou	2 (40.0%)	3 (60.0%)	
Item 11	Acertou	13 (68.4%)	6 (31.6%)	0.7019
	Errou	17 (61.3%)	10 (31.7%)	
Item 12	Acertou	18 (62.1%)	11 (37.9%)	0.5581
	Errou	12 (70.6%)	5 (29.4%)	
Item 13	Acertou	13 (72.2%)	5 (27.8%)	0.4238
	Errou	17 (60.7%)	11 (39.3%)	
Item 14	Acertou	18 (72.0%)	7 (28.0%)	0.2919
	Errou	12 (57.1%)	9 (42.9%)	
Item 15	Acertou	24 (70.6%)	10 (29.4%)	0.2917
	Errou	6 (50.0%)	6 (50.0%)	
Item 16	Acertou	5 (41.7%)	7 (58.3%)	0.0769
	Errou	25 (73.5)	9 (26.5%)	
	Total	**30**	**16**	**46**

SOURCE: authors, 2024.

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Table 9: Correlation between percentage of correct answers in item 2 vs. being on duty.

Variáveis independentes	Variáveis de Desfecho: Plantonista		
Item 2	Sim N (%)	Não N (%)	p-valor
Acertou	29 (70.7%)	12 (29.3%)	0.043
Errou	1 (20.0%)	4 (80.0%)	
Total	**30**	**16**	**46**

SOURCE: authors, 2024.

As demonstrated, only an association with statistical relevance between the assertiveness of the professional and the fact that he is an on-call physician, which allows us to infer that the fact that the PHC physician who also works in urgent and emergency services does not give him a better technical support for filling out the death certificate.

In a diametrically opposite way, when the association between the assertiveness of the proposed items and the time of graduation from graduation, the association of greater statistical relevance showed that professionals with less time in the market had a greater chance of getting it right.

Da Silva et al. (2016), in a very similar study, demonstrated that for each additional year of graduation, on average, the percentage of correct answers decreased by 0.485% (approximately 0.5%), with statistical significance (p = 0.001).

Considering the data obtained in the present research, it is found that the professional who works in the PHC of Campina Grande has the perception that the undergraduate course did not prepare him properly to fill out a DC, and that the time of work in the labor market, nor the complementarity of his performance in other services, better prepare you for a correct execution of the filling out of a death certificate.

Otherwise, Da Silva et. al. (2016) found that resident physicians, in general, were more apt to issue a death certificate than other medical professionals, which can be justified by the fact that they are the ones who are on the front line in patient care, being directly responsible for this document in a university hospital.

Although it was not statistically relevant for the present study, the fact that professionals who work directly in patient care, such as resident physicians who work in hospitals, are more prepared to fill out an OD need to be clarified.

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Lucena et al. (2014), states that there is an increasing trend in cases in which death certificates have incomplete information or with mistaken or generic terms such as "cardiac arrest", "cardiorespiratory arrest" or "multiple organ failure" – which in their study found that up to 38.2% of physicians use it.

Studies have shown that there is an increase in the percentage of DC correctly filled out, from 28.9% to 91%, after the presentation of a 90-minute seminar on the subject, cited by Da Silva et. al. (2016).

All these results reinforce the premise that medical courses, and consequently, professional doctors, do not give due value to the epidemiological importance of filling out these data for the country's public health policies. Associated with the lack of interest and even the disregard of the importance of this document, the lack of improvement courses by medical institutions and class entities may justify the low quality of the information contained in the death certificates.

There is an imminent need to improve the teaching of death certificates. It is pointed out as possible solutions in the academic field, that the approach to this theme occurs not only in the discipline of Forensic Medicine, but also in a spaced way in other curricular components such as Collective Health and Medical Ethics due to the moral aspects involved in the completion.

CONCLUSION

The death certificate is the official document, which can be filled out individually and non-transferable by the medical professional, and which provides data to feed the Ministry of Health's Morality Information System. This document has a high epidemiological importance, being extremely relevant to outline various public policies.

It is noted that medical professionals and academic curricula in general do not give due importance to this document, which ends up generating failures in its completion, hindering the promotion of public policies aimed at mitigating the most diverse consequences of various conditions.

The present study showed that the medical professional who works in the PHC of Campina Grande was not prepared to properly fill out a D.O., even if he has experience in the job market or works in several fields of activity.

Basic knowledge that allows a good completion of a death certificate must be permanently reviewed, updated and improved by the various intuitions to which

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professionals are linked. In this way, the data contained in this very important document will be able to generate correct information for the provision of quality public policies.

It can also be seen that in the local scenario the flow of filling out the D.O. is being lost and many PHC professionals do not even fill out this document. Further studies can clarify where and which professionals are providing death certificates for the preparation of the respective death certificates.

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