



Original Article

Physicians' Knowledge, Attitude and Practice toward Ethical and Medical Issues of Palliative Care in Suez Canal University Hospital

Mona M. Awny¹ , Shamaa A. Al-Touny², Samar E. M. Gaafar³

Departments of ¹Forensic Medicine and Clinical Toxicology, ²Anaesthesia and Intensive Care, ³Public Health, Community Medicine, Occupational and Environmental Medicine, Faculty of Medicine, Suez Canal University, Ismailia, Egypt.

ABSTRACT

Objectives: Palliative care (PC) includes a varied range of medical and ethical aspects that should be considered. The role of physicians in PC is crucial so this work explores physicians' knowledge, attitude and practice toward PC in Suez Canal University hospital in Egypt.

Material and Methods: A questionnaire survey investigating physician's knowledge, attitude and practice in PC in 30 questions besides their personal and professional data.

Results: Nearly 31% of participants received education in PC. Only 5.5% realised that PC should be introduced to patients at all health-care levels. Most participants (70.9%) were not aware about the WHO three-step analgesic ladder. About 57.7% and 43.6% of participants preferred informing terminal patients about their diagnosis and prognosis, respectively. More than half of participants (58.6%) agreed that the medical intervention decision is the patient's right and 63.2% agreed that do not resuscitate choice is the patient or his family right if he is incompetent. Participants who do not have advance care plans discussions with their terminal patients represented 53.6%.

Conclusion: This study indicated lack of knowledge and insufficient professionalism during management of terminal patients regarding some medical and ethical issues of PC. Formal education and training are urgently needed to improve the holistic vision and practice of PC in Egypt.

Keywords: Palliative care, Ethics, Knowledge, Attitude, Practice

INTRODUCTION

Palliative care (PC) was commonly considered as providing medical care to those patients who are close to death. Recently, physicians' perspective toward PC has extended to involve a wide range of patients suffering from cancer or advanced organ failure with expected many years of survival.^[1] The World Health Organisation (WHO) defined PC as 'an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and physical, psychosocial and spiritual problems.'^[2]

According to the WHO, cancer is the second underlying cause of death and nearly 70% of cancer deaths occur in low- and middle-income countries.^[3] Published statistics

from the International Agency for Research on Cancer in 2020 reported that the number of Egyptians newly diagnosed with cancer was 134632, while number of Egyptians who died from cancer was 89042.^[4] Moreover, the burden of non-communicable diseases in Egypt is estimated by causing 84.7% of all deaths, thus constituting the leading national cause of death currently. These diseases are mainly cardiovascular diseases, cancers, respiratory diseases and diabetes mellitus.^[5]

Developing countries are in a huge and unmet need for PC services.^[6] Egypt as a country has an isolated PC provision with a patchy developmental scope of PC, limited numbers of hospice services (ratio of hospice-PC services to the population in Egypt are among the lowest in Africa and the Middle East),^[7] insufficient education and training of healthcare personnel on PC and absence of PC from the national healthcare agenda.^[8] Hence, building up awareness

*Corresponding author: Dr. Mona Mohamed Awny, Department of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Suez Canal University, Ismailia, Egypt. mona_gioconda@yahoo.co.uk

Received: 05 September 2021 Accepted: 20 August 2022 EPub Ahead of Print: 21 September 2022 Published: 23 November 2022 DOI: 10.25259/IJPC_65_2021

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2022 Published by Scientific Scholar on behalf of Indian Journal of Palliative Care

for PC in Egypt is crucial and one of the vital components that effectively enhance the successful application of PC is the medical practitioners' knowledge, attitudes and practices which determine their behaviour and strategy during assessment and management of patients.^[9] We carried out this study as not much is known about the Egyptian physicians' knowledge, attitude and practice towards PC, so we needed to assess how knowledgeable these physicians are and what is, therefore, their attitude and their practice towards patients needing PC.

MATERIAL AND METHODS

Questionnaire

This is a descriptive study using a structured questionnaire that was adapted from validated questionnaires.^[10-12] Questionnaire was evaluated for appropriateness for use with the Egyptian physicians by oncologists and expert physicians. Based on feedback given by the experts, minimal modifications related to rephrasing of some items were performed for more organised elicitation of relevant information. The questionnaire included four divisions: (1) Personal and professional data for the participating physicians; (2) physician's knowledge of PC; (3) physician's attitude towards PC and (4) physician's practice in PC. Physician's knowledge, attitude and practice were assessed by 30 questions used to gain information about common ethical and medical issues of PC including: Knowledge and concept of PC, assessment and management of pain and other symptoms, decision-making and working with surrogates, communication, end of life care and nursing issues.

Participants and data collection procedures

This study was conducted on physicians working in Suez Canal University Hospital in Ismailia governorate in Egypt. This is a tertiary educational hospital serving five governorates (Ismailia, Port-said, Suez, North Sinai and South Sinai). Physicians of all scientific degrees of certain specialties who were expected to introduce medical care and supervision to terminally ill patients as in (Internal Medicine, Surgery, Anaesthesia and Intensive care unit (ICU) and Emergency) were included in the study. Questionnaires were filled up during direct interviews with the participating physicians after written informed consents were taken from them. The confidentiality of the participants' data was maintained through the procedure.

Ethics approval

Ethical approval was obtained from the Research Ethics Committee of the Faculty of Medicine Suez Canal University.

Statistical analysis

All data analyses were performed with the statistical package for social science SPSS version 25. Descriptive statistics were used for describing and summarising data as appropriate

(mean and standard deviation for continuous variables and frequency and percentage for categorical variables).

RESULTS

Personal and professional data

The questionnaires of 220 respondents were analysed. [Table 1] shows the personal and professional characteristics of participants. Male physicians represented 55.9% of participants while 44.1% were female physicians. The ages of the participating physicians were between 25 and 66 years. Assistant lecturers represented 45.9% of participants followed by residents 23.6% and lecturers 21.8%. The clinical specialty included surgery which represented 38.2%, internal medicine 33.6%, anaesthesia and ICU 17.3% and Emergency medicine 10.9%. Most of participants (95%) were exposed to terminal patients in their career. Only 31.4% of participants received education in PC, mostly from lectures or seminars (50.7%).

Knowledge

[Table 2] summarises physicians' responses regarding their knowledge about PC. Surprisingly, only 5.5% from participants recognised that PC should be introduced to the patients at all health-care levels. Concerning the knowledge about the fifth vital sign, 45.5% of participants selected pain as the fifth vital sign. Regarding the WHO analgesic ladder assessed, only 29.1% of participants were aware of it and 51.6% of them knew that it is a 3-step ladder.

Attitude

[Table 3] shows 13 questions exploring physicians' attitude towards PC. More than half of participants (57.7%) agree that terminal patients should be informed about their diagnosis and 43.6% of participants also agree that those patients should also be told about their condition prognosis. Participants who agree that patients have the right for their medical intervention choices represent 58.6%, while 37.3% agree with this to a limited degree. Most participants (95.5%) agree that the family should be involved in the physical care of the terminal patient and 46.8% will support the patient opinion in the decision-making process. Participants who feel uncomfortable breaking bad news to patients or their families represent 33.6%. More than one-third (36.8%) of participants disagree that terminal patients or their families (if the patient is incompetent) have the right to choose 'do not resuscitate (DNR)'. Interestingly, the first preferable place for a terminal patient to die as reported by participants is home (45%) followed by hospice (37.3%) and lastly hospital (17.3%).

Practice

[Table 4] displays the actual participants' practice towards their terminal patients. Surprisingly, 53.6% of participants do not discuss advance care plans with their patients. On the other hand, 70% supply their terminal patients with alternative treatment options. Most participants (76.4%)

Table 1: Personal and professional data of participants (n=220).

| Variable | M±SD | Range | Variable | n | % |
|---------------------------|----------|----------|---------------------------------------|-----|------|
| Age | 33.5±6.9 | 25–66 | Hear about PC | | |
| Experience years | 8.1±6.4 | 1–36 | Yes | 178 | 19.1 |
| Variable | n | % | No | 42 | 80.9 |
| Gender | | | Source | | |
| Male | 123 | 55.9 | Readings | 53 | 29.8 |
| Female | 97 | 44.1 | Education | 21 | 11.8 |
| Job | | | Scientific conversations | 49 | 27.5 |
| Resident | 52 | 23.6 | Work practice | 17 | 9.6 |
| Assistant lecturer | 101 | 45.9 | Readings and education | 8 | 4.5 |
| Lecturer | 48 | 21.8 | Reading and scientific conversation | 8 | 4.5 |
| Assistant professor | 12 | 5.5 | Education and scientific conversation | 11 | 6.2 |
| Professor | 7 | 3.2 | Others | 11 | 6.2 |
| Specialty | | | PC education | | |
| Anaesthesia and ICU | 38 | 17.3 | Yes | 69 | 31.4 |
| Surgery | 84 | 38.2 | No | 151 | 68.9 |
| Internal medicine | 74 | 33.6 | How did you receive it? | | |
| Emergency | 24 | 10.9 | Conference/workshop | 10 | 14.5 |
| Exposure to terminal pts. | | | Lecture/Seminar | 35 | 50.7 |
| Yes | 209 | 95.0 | Self-learning | 12 | 17.4 |
| No | 11 | 5.0 | Others | 12 | 17.4 |

include both the patient and his family in the decision-making process and almost half the participants (50.5%) share information with the patient's family according to their involvement in decision-making. Considering the medical factor only when managing a terminal patient was practiced by 42.7% of participants.

DISCUSSION

This study sheds light on the concept of PC among physicians in one of the most important hospitals serving the Eastern side of Egypt. PC in Egypt is still in its early phases with scarce services available to terminally ill patients, that is why research is important to improve PC services taking into consideration the needs, culture and resources within the Egyptian community.^[13]

Physicians participating in this survey had lack of knowledge about PC which can be attributed to the deficiency of formal PC education. Only 31% of physicians who participated in this study received education in PC, these findings were aligned with studies conducted among physicians in other countries, such as US^[14] and Lebanon.^[10]

In the past 20 years, more countries in the Middle East region have started PC training, focusing on pain management.^[15] In Egypt, PC was introduced into the training program of medical oncology at the National Cancer Institute of the University of Cairo in 2004.^[16] However, at Suez Canal University hospital in Ismailia, PC is not yet introduced in both undergraduate and postgraduate programs. However, pain management is performed in Suez Canal University hospital by anaesthesia specialists in the pain treatment clinic.

Interestingly most participants in this study reported that PC should be introduced only at the tertiary health-care level. It is well established that all countries implementing PC with the public health approach need to incorporate the PC services across all levels of care, whether public or private services, to guarantee accessibility to the whole target population.^[2]

Pain management for terminally ill patients is one of the major priorities in PC. Using opioids to achieve pain control is essential and its consumption acts as an indicator for effective pain management and accessibility to PC.^[17] The WHO three-step ladder approach for cancer pain relief in adults has demonstrated that administering the right drug in the right dose at the right time is inexpensive and 80–90% effective.^[18] In this study, physicians showed lack of knowledge regarding the WHO three-step analgesic ladder. This could be attributed to the lack of education and training of PC issues and partially due to the limited experience of pain management protocols. Although morphine is included on the WHO Model List of Essential Medicines, there is still a restricted availability of opioids in our country that is well interpreted by the low figures of opioid consumption in Egypt – The International Narcotics Control Board ranked Egypt 117 out of 178 countries for its level of consumption of narcotic drugs^[19] due to the Egyptian opioids control policy contributing significantly to this shortage in addition to the fear of opioid misuse or abuse phobia that eventually lead to inadequate pain management.^[20] Another study agrees with this finding reporting knowledge deficits among physicians regarding opioid dosage, route of administration and management of side effects.^[21] On the other hand, a

Table 2: Physicians' knowledge of palliative care (n=220).

| | n | % |
|---|-----|------|
| What is your understanding of palliative care? | | |
| Correct | 17 | 7.7 |
| Incorrect | 203 | 92.3 |
| Which patients are targeted by palliative care? | | |
| Correct | 20 | 9.1 |
| Incorrect | 200 | 90.9 |
| Which type of care is included in palliative care? | | |
| Correct | 105 | 47.7 |
| Incorrect | 115 | 52.3 |
| At which health-care level palliative care given? | | |
| Correct | 12 | 5.5 |
| Incorrect | 208 | 94.5 |
| What are the components of palliative care? | | |
| Correct | 77 | 35.0 |
| Incorrect | 143 | 65.0 |
| The fifth vital sign | | |
| Pain | 100 | 45.5 |
| Consciousness | 103 | 46.8 |
| Memory | 17 | 7.7 |
| Do you know the WHO analgesic ladder? | | |
| Yes | 64 | 29.1 |
| No | 156 | 70.9 |
| Number of steps in WHO analgesic ladder | | |
| Two | 1 | 1.6 |
| Three | 33 | 51.6 |
| Four | 30 | 46.9 |
| Can you decide when to stop treatments that are no more useful to your patient? | | |
| Yes | 43 | 19.5 |
| No | 54 | 24.5 |
| Sometimes | 111 | 50.5 |
| Unimportant issue | 12 | 5.5 |

study done in India showed high level of knowledge among generalists regarding pain management and the WHO three-step analgesic ladder.^[22]

Regarding the attitude of physicians toward PC, many ethical issues were addressed in this survey. The disclosure of diagnosis to the patient was preferred by more than half the physicians; moreover, informing the patient about his condition prognosis showed approximate figures. However, the minority of physicians felt comfortable breaking bad news to the patients or their families. Several studies are in consistence with these results, a previous study assessing the awareness and practice about breaking bad news among Sudanese doctors revealed that 65.6% of them reported that bad news should be delivered directly to patients.^[23] Another study conducted in China showed that most oncology clinicians (81%) believed that patients should know about their cancer diagnosis and prognosis.^[24] On the contrary, a study in Lebanon reported that only 19.1% of physicians inform patients about their diagnosis.^[10] Obviously, there is a great difference between the physicians believes and practices

Table 3: Physicians' attitude toward palliative care patients (n=220).

| | n | % |
|---|-----|------|
| Terminal patients should be informed about their diagnosis | | |
| Yes | 127 | 57.7 |
| No | 7 | 3.2 |
| According to pts and family decision | 86 | 39.1 |
| Terminal patients should be informed about their prognosis | | |
| Yes | 96 | 43.6 |
| No | 29 | 13.2 |
| According to pts and family decision | 95 | 43.2 |
| Deciding the medical intervention is the patient's right | | |
| Yes | 129 | 58.6 |
| No | 8 | 3.6 |
| To a limited degree | 83 | 37.3 |
| The family should participate in the care of the terminal patient | | |
| Yes | 211 | 95.5 |
| No | 9 | 4.1 |
| If discrepancy in the decision occurs between pt & family, you will support? | | |
| Patient | 103 | 46.8 |
| Family | 15 | 6.8 |
| According to the situation | 102 | 46.4 |
| If the pt is incompetent and his family's decisions differ from his previous ones, you will support | | |
| Patient | 54 | 24.5 |
| Family | 49 | 22.3 |
| According to the situation | 117 | 53.2 |
| What do you feel about breaking bad news to the patients or their families? | | |
| Comfortable | 40 | 18.2 |
| Uncomfortable | 74 | 33.6 |
| Slightly comfortable | 106 | 48.2 |
| In which way do you manage the terminal patient's complaint? | | |
| Seriously | 131 | 59.5 |
| Assurance | 87 | 39.5 |
| Negligence | 2 | 0.9 |
| Regarding terminal cancer patients, how much they need medical assessments? | | |
| Regular | 146 | 66.4 |
| Irregular | 20 | 9.1 |
| When needed | 54 | 24.5 |
| Do you prefer not to care for terminal cancer pts? | | |
| Yes | 149 | 67.7 |
| No | 71 | 32.3 |
| Nurse is the first qualified medical personnel handles terminal pt care | | |
| Yes | 154 | 70.0 |
| No | 66 | 30.0 |
| Choosing DNR option is the right of the terminal patient or his family if he is incompetent | | |
| Yes | 139 | 63.2 |
| No | 81 | 36.8 |
| Where do you think a terminal patient is better to die? | | |
| Hospital | 38 | 17.3 |
| Home | 99 | 45.0 |
| Hospice | 83 | 37.3 |

Table 4: Physicians' practice towards palliative care patients (n=220).

| | n | % |
|--|-----|------|
| Do you discuss advance care plans with your pts? | | |
| Yes | 102 | 46.4 |
| No | 118 | 53.6 |
| Do you supply your terminal pts with alternative treatment options? | | |
| Yes | 154 | 70.0 |
| No | 66 | 30.0 |
| Who do you include in the decision-making? | | |
| Patient | 26 | 11.8 |
| Family | 12 | 5.5 |
| patient and family | 168 | 76.4 |
| None of them | 14 | 6.4 |
| You consider the following when managing a terminal patient | | |
| Religious issues | 16 | 7.3 |
| Medical status | 94 | 42.7 |
| Psychological condition | 54 | 24.5 |
| All the above | 56 | 25.5 |
| You share information with patient's family according to | | |
| Their ability to understand | 64 | 29.1 |
| Their involvement in decision making | 111 | 50.5 |
| Your intention to disclose information | 16 | 7.3 |
| All the above | 29 | 13.2 |
| Will you perform basic life support measures to a terminal pt if he was critically ill and close to death? | | |
| Yes | 82 | 37.3 |
| No | 36 | 16.4 |
| According to the cause | 102 | 46.4 |
| In which meaning do you understand the terminal patient, or his family anger burst? | | |
| An attack against you | 13 | 5.9 |
| A rejected behaviour | 60 | 27.3 |
| You give an excuse | 147 | 66.8 |
| How do you consider the terminal patient inquiries? | | |
| Right | 192 | 87.3 |
| Untrusting you | 14 | 6.4 |
| Interfering your work | 14 | 6.4 |

when it comes to disclosing information to the patient about his terminal condition as the way of delivering bad news to the patient is affected by ethical, cultural and legal aspects.^[25] The medical decision-making process reinforces the bioethical principle of autonomy that gives the patient the right to accept or refuse health-care recommendations made by the physician.^[26] In this study, more than half participants (58.6%) agreed that the decision of medical intervention is totally the patient's right. In the same context, 63.2% agreed about 'DNR' choice being the patient or his family right if he is incompetent. Similar study in China mentioned that 53% of physicians make treatment decisions after consulting their patients and 26% of physicians make the decisions alone.^[24] Another study reported that 91.4% of physicians think that patients have the right to choose DNR.^[10] On the other hand, a survey conducted among ICU physicians in a tertiary care centre in Saudi Arabia towards DNR showed that 62.5% of

them denied the necessity for DNR approval from the patient or his family.^[27] In the present study, although the above results represent most participating physicians, it is still considered low reflecting the fact that some physicians are preferring the paternalistic model of patient-physician interaction and the lack of discussion of advanced care plans regarding end-of-life decisions between patient and physician. In Egypt, DNR medical order is a controversial issue where there is no basis for ending therapy, although there are some Egyptian medical facilities that practice DNR, there is no solid guidelines known for DNR policies which result in an obvious discrepancy between physicians' attitudes and practices towards DNR orders.^[28] In general, DNR policies and consequently practices are poor in Arab Muslim countries due to cultural, educational and religious characteristics coupled with ethical issues and emotional burden on families although Islam as a religion is not a barrier against DNR.^[27]

Most participants in this survey supported the role of the family in taking care of terminal patient and a significant number of participants chose to support the family in decision-making even if it was different from patient's decision especially when he becomes incompetent. According to the Egyptian culture and dominant religion 'Islam', family bonds are strong and most terminally ill patients are surrounded by close family members who have great power and direct involvement in the decision-making process. This seems inconsistent with the Western bioethics' norms of patient confidentiality and disclosure of medical information, but the principle of autonomy in Arabic Islamic countries is appreciated by physicians as autonomy of both the patient and the family.^[29]

Obviously, working with the family is a cross-cultural issue, in many Arabic and Islamic countries for example in Lebanon and Saudi Arabia, the family has an important role in providing close care to the terminal patient and protecting him from bad news securing his emotions and well-being; hence, physicians prefer providing the family with the diagnosis of their patient and involving them even more than the patient in the decision-making.^[10] Similarly, in many Asian cultures, critical illness is a shared family condition. Two surveys in China showed the Chinese physicians' greater preferences to families than patients in disease disclosure and treatment issues.^[30] A Japanese study revealed that 46% of the population supported the duty of the family in protecting the patient from painful diagnosis.^[31]

In this study, participants chose home as the first preferable place for the terminal patient to die followed by hospice then hospital. This finding is confirmed by a previous study done in Egypt regarding the actual place of death for advanced cancer patients referred to the PC medicine unit of Kasr Al-Aini Center of Clinical Oncology and Nuclear Medicine (NEM-ROCK) – this centre was established in 2008 comprising of three models of PC services: outpatient,

inpatient and home care – which reported that 73.4% of terminal cancer patients died at home.^[32] Moreover, another study showed that patients who die at home or in hospices as well as patients who have early discussions with their physicians regarding the preferred site of death have a better life completion.^[33] The WHO reports confirm the fact that terminal patients in low- and middle-income countries usually prefer to die at home, explaining the more acceptable and affordable home-based care, whereas there is lack of hospice services in these countries due to limited resources and deficient physicians' knowledge and training concerning hospice care services. Western countries have a different situation where PC is usually provided in hospice although there are certain challenges about the admission requirements to the available hospices.^[29]

The assessment of the participating physicians' practice in this study was challenging with their poor knowledge and lack of formal training in PC, so feasible questions were addressed as long as their practice was surveyed under the concept of terminal patient health care. Our survey showed lack of advance care plans discussions between physicians and patients in more than half participants' practice, another study conducted in Saudi Arabia reported similar results.^[27] This finding again points to either the palliative paternalism practiced by some physicians towards their patients or to the shortage of understanding of the role of advance care planning (ACP). ACP helps patients to make their own choices for the current and future management decisions, so it is a continuous process with review of patient's present condition and prognosis that later helps surrogates in decision-making according to the patient's preferences when he loses his capacity to make such decisions.^[34]

The present survey showed a diversity in aspects considered by physicians while managing terminal patients with most of them giving priority to the medical status, then psychological condition and finally to religious issues. About 25% of all participants consider these aspects all together which is considered logic and professional but still insufficient, this is consistent with a study conducted in Taiwan which showed the weak spiritual support provided by the doctors to patients and families.^[35] The role of health-care providers should expand beyond just introducing the medical care to include understanding psychological, emotional and spiritual aspects of the patient and considering his values and religious background as well.^[21]

CONCLUSION

This study provides important objective data about the physicians' general perspective towards PC in Egypt. PC is not a luxurious option for terminal patients; it represents an irreplaceable necessity that should be integrated into the Egyptian health-care systems at all levels. This field need to be developed on large scale even with the current limited

resources to be accessible by all patients in need. Two main factors are needed to achieve this target: First: Governmental policies and guidelines should be implemented in all aspects of PC and second: Formal training and education should be introduced into both undergraduate and postgraduate programmes in all the Egyptian medical colleges.

Acknowledgments

The authors gratefully acknowledge all the physicians who participated in this study.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Sanderson C, Tieman J. Caresearch-online palliative care information for GPs. *Aust Fam Physician* 2010;39:341-3.
- World Health Organization. WHO Definition of Palliative Care. Geneva: World Health Organization; 2012. Available from: <https://www.who.int/cancer/palliative/definition/en> [Last accessed on 2021 Jul 11].
- Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, *et al.* Global Cancer Observatory: Cancer Today. Lyon: International Agency for Research on Cancer; 2010. Available from: <https://www.gco.iarc.fr/today> [Last accessed on 2021 Jul 12].
- Global Initiative for Cancer Registry Development. Lyon: International Agency for Research on Cancer; 2020. Available from: <https://www.gco.iarc.fr/today/data/factsheets/populations/818-egypt-fact-sheets.pdf> [Last accessed on 2021 Jul 19].
- World Health Organization. Egypt Health Profile 2015. Regional Office for the Eastern Mediterranean. Geneva: World Health Organization; 2016. Available from: https://www.applications.emro.who.int/dsaf/EMROPUB_2016_EN_19264.pdf?ua=1 [Last accessed on 2021 Jul 23].
- Shetty P. The parlous state of palliative care in the developing world. *Lancet* 2010;376:1453-4.
- Clark D, Baur N, Clelland D, Garralda E, López-Fidalgo J, Connor S, *et al.* Mapping levels of palliative care development in 198 countries: The situation in 2017. *J Pain Symptom Manage* 2019;59:794-807.e4.
- Eltaybani S, Igarashi A, Yamamoto-Mitani N. Palliative and end-of-life care in Egypt: Overview and recommendations for improvement. *Int J Palliat Nurs* 2020;26:284-91.
- Skår R. Knowledge use in nursing practice: The importance of practical understanding and personal involvement. *Nurse Educ Today* 2010;30:132-6.
- Abu-Saad Huijjer H, Dimassi H. Palliative care in Lebanon: Knowledge, attitudes and practices of physicians and nurses. *J Med Liban* 2007;55:121-8.
- Butola S. A study on knowledge, attitude, and practices regarding palliative care among doctors in border security force. *Prog Palliat Care* 2014;22:272-9.
- Gu X, Cheng W. Chinese oncologists' knowledge, attitudes and practice towards palliative care and end of life issues. *BMC Med Educ* 2016;16:149.
- Elshamy K. Challenges and future trends for cancer care in Egypt. In: Silbermann M, editor. *Cancer Care in Countries and Societies in Transition*. 1st ed. New York: Cham Springer International Publishing; 2016. p. 117-46.
- Farber NJ, Urban SY, Collier VU, Metzger M, Weiner J, Boyer EG. Frequency and perceived competence in providing palliative care to terminally ill patients: A survey of primary care physicians. *J Pain Symptom Manage* 2004;28:364-72.
- Silbermann M, Shevchenko K, Eaton V. Palliative care training gains ground in Middle Eastern countries. *J Palliat Care Med* 2013;S3:e001.

16. Ministry of Health and Population of Nepal. Egypt Health Sector Reform Program. Ramshah Path, Kathmandu: Ministry of Health and Population of Nepal; 2003.
17. Manjiani D, Paul DB, Kunnumpurath S, Kaye AD, Vadivelu N. Availability and utilization of opioids for pain management: Global issues. *Ochsner J* 2014;14:208-15.
18. World Health Organization. World Health Organization's Cancer Pain Ladder for Adults. Geneva: World Health Organization; 2013. Available from: <https://www.entify/cancer/palliative/painladder/en/index.html> [Last accessed on 2021 Aug 10].
19. International Narcotics Control Board. Narcotic Drugs: Estimated World Requirements for 2015; Statistics for 2013. New York: United Nations; 2015.
20. Alsirafy SA, Farag DE. A shortage of oral morphine in Egypt. *Bull World Health Organ* 2016;94:3.
21. Budkaew J, Chumworathayi B. Knowledge and attitudes toward palliative terminal cancer care among Thai generalists. *Asian Pac J Cancer Prev* 2013;14:6173-80.
22. Rahul RB, Sonali KB. Knowledge of general practitioners in rural area of Pune towards palliative care. *Indian J Basic Appl Med Res* 2013;2:557-63.
23. Dafallah MA, Ragab EA, Salih MH, Osman WN, Mohammed RO, Osman M, *et al.* Breaking bad news: Awareness and practice among Sudanese doctors. *AIMS Public Health* 2020;7:758-68.
24. Wang XS, Di LJ, Reyes-Gibby CC, Guo H, Liu SJ, Cleeland CS. End-of-life care in urban areas of China: A survey of 60 oncology clinicians. *J Pain Symptom Manage* 2004;27:125-32.
25. Ong KJ, Back MF, Lu JJ, Shakespeare TS, Wynne CJ. Cultural attitudes to cancer management in traditional South-East Asian patients. *Australas Radiol* 2002;46:370-4.
26. Cerminara KL. The law and its interaction with medical ethics in end-of-life decision making. *Chest* 2011;140:775-80.
27. Gouda A, Alrasheed N, Ali A, Allaf A, Almudaihem N, Ali Y, *et al.* Knowledge and attitude of ER and intensive care unit physicians toward do-not-resuscitate in a tertiary care center in Saudi Arabia: A survey study. *Indian J Crit Care Med* 2018;22:214-22.
28. Azab SM, Abdul-Rahman SA, Esmat IM. Survey of end-of-life care in intensive care units in Ain Shams University Hospitals, Cairo, Egypt. *HEC Forum* 2020;34:25-39.
29. Hablas A. Palliative care in Egypt. *J Pediatr Hematol Oncol* 2011;33:S52-3.
30. Hahne J, Liang T, Khoshnood K, Wang X, Li X. Breaking bad news about cancer in China: Concerns and conflicts faced by doctors deciding whether to inform patients. *Patient Educ Couns* 2020;103:286-91.
31. Chattopadhyay S, Simon A. East meets west: Cross-cultural perspective in end-of-life decision making from Indian and German viewpoints. *Med Health Care Philos* 2008;11:165-74.
32. Alsirafy SA, El Mesidy SM, Abou-Elela EN. Where do Egyptian palliative care patients with cancer die? *Am J Hosp Palliat Med* 2010;27:313-5.
33. Mori M, Shimizu C, Ogawa A, Okusaka T, Yoshida S, Morita T. A national survey to systematically identify factors associated with oncologists' attitudes toward end-of-life discussions: What determines timing of end-of-life discussions? *Oncologist* 2015;20:1304-11.
34. Sudore RL, Fried TR. Redefining the "planning" in advance care planning: Preparing for end-of-life decision making. *Ann Intern Med* 2010;153:256-61.
35. Ke YX, Hu SH, Takemura N, Lin CC. Perceived quality of palliative care in intensive care units among doctors and nurses in Taiwan. *Int J Qual Health Care* 2019;31:741-7.

How to cite this article: Awny MM, Al-Touny SA, Gaafar SE. Physicians' knowledge, attitude and practice toward ethical and medical issues of palliative care in Suez Canal university hospital. *Indian J Palliat Care* 2022;28:391-7.