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Assessing the compliance of educational curricula of selected disciplines with the content standards of cancer-related palliative care

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Abstract:

BACKGROUND: Management of cancer complications requires the provision of palliative care as a comprehensive care by the main and trained members of this method of care. The aim of the present study was to assess the compliance of educational curricula of selected disciplines with the content standards of cancer-related palliative care.

MATERIALS AND METHODS: In this descriptive-comparative study, the content standards of palliative care for nurses, physicians, and social workers were identified based on the World Health Organization guideline and Oxford Textbook of Palliative Nursing. For this purpose, a separate checklist was prepared for the disciplines with different dimensions. Then the face and content validity of the checklists were checked. Finally, we examined the coordination between selected curricula available on the website of Education Deputy of the Ministry of Health, Treatment and Medical Education with the dimensions of the checklists.

RESULTS: All three curricula in most domains were relevant with the content standards, but there was the biggest education need in the areas related to the dimensions of “planning and educational,” “educating physician in palliative care,” and “considering patient preferences” in these disciplines.

CONCLUSIONS: To meet the educational needs, it is suggested to change some course topics, hold training courses, or joint workshops.

Keywords:

Content standards, curriculum, medical, neoplasms, nursing, palliative care, social work

Introduction

Today, cancer is a major problem in the world^[1] and is associated with effects such as depression and anxiety.^[2] Cancer is the third leading cause of death in Iran and its prevalence is different in affluent and poor areas.^[3,4] The Iranian population is at high cancer susceptibility following industrial developments and modernization.^[5-7]

The complexity of cancer treatment and its complications indicates the need for holistic

care.^[8,9] One of the holistic care methods is palliative care. As defined by the World Health Organization (WHO), palliative care improves the quality of life of the patient and his/her family by controlling physical, psychological, social, and spiritual manifestations, especially pain control.^[10]

Considering that PC involves dimensions – physical, psychological, spiritual, and social as a part of the health dimension, it requires a team and interprofessional approach.^[11,12] Palliative care team members included physicians, nurses, and social workers.^[13] Implementing

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palliative care services for cancer patients requires training of the members of the PC team.^[14]

Education plays an important role in the effectiveness, stability, and development of PC services.^[15] Providers of this method of care need to receive training regarding issues such as psychosocial interventions, communication with patients and their families, end-of-life care, loss, and pain management.^[16,17]

Palliative care is a new concept in Iran,^[18] and there is no coherent and clear plan to provide PC services for patients nearing the end of life and their families. However, it is thought that patients do not have full access to PC services, despite urgent needs in such a system.^[19]

According to the results of a study, despite the importance of palliative care, little attention has been paid in the Iranian nursing undergraduate curriculum^[20] in this regard. Hadian *et al.* and other studies have shown that inappropriate educational content for students' nursing and a moderate level of PC knowledge for physicians are one of the major challenges about this method of care.^[21-25]

However, in Finland, the student curriculum is well compliance with the standards of the European Palliative Care Association.^[26] In Japan, too, undergraduate education in palliative care has a prominent place in the curriculum, and students are given the necessary training.^[27]

Considering that cancer patients need to receive holistic care and the members of healthcare team need to be familiarized with PC and receive the necessary training, as well as considering the major gaps in the curriculum of these people, it is necessary to determine the educational needs of care providers based on their job description and to identify their knowledge gaps accordingly. For this purpose, in the present study, first, the standard job description of the main members of the PC team was determined based on the "WHO guide" and "Oxford Textbook of Palliative Nursing."^[13,28]

WHO's guide, entitled "Planning and Implementing Palliative Care Services – A Guide for Program Managers," defines the required workforce, job descriptions, and steps for setting up PC centers at home, community, hospice, and hospital. This guide also outlines the main tasks and skills needed by individuals. With regard to the Oxford Textbook of Palliative Nursing, one chapter is devoted to interdisciplinary PC teams and fully defines PC and job descriptions of its team members, including physicians, nurses, and social workers. Considering that the job description of the members of the palliative care

team in the WHO's guide is regarded as an appropriate reference for all managers of health programs at the national, state, and regional levels in both developed and developing countries, on the one hand, and "Oxford Textbook of Palliative Nursing" has been developed and used as one of the valuable resources to in the educate students and health workers regarding palliative care, with the aim of expanding and integrating palliative care, on the other hand, the present study was carried out based on these two resources.^[13,28]

Then, the current status of formal education was compared with the standard status based on this job description so that necessary suggestions are given to not only identify similarities and shortcomings and thus to improve the training of palliative care providers and providing optimal PC care to cancer patients. The purpose of this study was to compare the curriculum of selected disciplines of nursing, medicine, and social work with the content standards of palliative care related to cancer and to determine the educational needs of selected curricula and provide suggestions to meet these needs.

Materials and Methods

Type of study and research population

The present study is a descriptive-comparative study. The research population includes all health disciplines, and samples were the nursing, medical, and social work disciplines. Inclusion criteria included: disciplines should be among the main disciplines of palliative care and the curriculum should be in Persian. Researchers' lack of full access to curricula was considered as exclusion criterion.

Data collection tool

Data collection was performed using the WHO guide and the Oxford Textbook of Palliative Nursing.^[13,28] We used these resources as a criterion to assess coordination between the desired curricula with the content standards. Further, the duties of the members of the palliative care team are presented in each of the guides.^[13,28]

Implementation of the study

After selecting the research instrument, the researchers prepared separate checklists based on the job descriptions of the nurse, physician, and social worker in the palliative care team and then categorized the tasks into different dimensions based on their similarity.

The checklist prepared for nurses' job description includes the following dimensions: management (seven domains: supervision, coordination, home care management, control-monitoring of other procedures taken by nurses, evaluating and reporting other procedures taken by team members, leadership, management of challenges in palliative

care team and discussion of solutions), educational (three domains: provide training to other nurses, family members, and other members of the health team regarding palliative care), care (nine domains: having communication skills, evaluation-controlling pain and other symptoms, focusing on holistic needs, providing care for specialized procedures such as ostomy, supporting the individual/family, paying attention to patient/family talks-preferences, recording-reporting, ordering diagnostic tests-drug interventions, informing patient about the care plan), planning (three domains: cooperating in planning for advanced care, cooperating in designing, and cooperating in evaluating interventions to treat pain and other symptoms), and communication (one domain: establishing a relationship between the community care system and secondary and tertiary care centers).

Checklist for physicians' job description consists of the following dimensions – providing counseling and information about the disease (two domains: giving information about the disease, providing telephone counseling), treatment (seven domains: symptom management in hospitals, referral to advanced treatment centers, prescribing painkillers, determining diagnosis-prognosis-treatment-drug management, paying attention to patient goals and aspirations, radiotherapy, and emergency care), educational (one domain: educating patients/families and other community caregivers to prevent and manage symptoms), receiving training (one domain: attending palliative care and organized service training classes), community and home services (three domains: community referrals, staff training about home-based care, treatment-patient care-supervision-supporting the community-based team), monitoring and facilitating access to facilities for the patient and caregivers (four domains: preparing medicines for the patient or his/her caregiver under acute conditions, monitoring-supporting-maintaining the supplies needed for home care providers, helping to resolve concerns and challenges of the team, investigating the suitability of the location of nursing home-hospice-rehabilitation facilities-transitional care), and recording procedures and discharge (two domains: recording procedures and accompanying the team during patient discharge).

Social workers' job description checklist includes the following dimensions: care (five dimensions: attention to family dynamics-cultural considerations, communication with the patient/family, support for patient preferences, assessment of needs-strengths-patient/family resources, and meeting emotional, financial, and legal needs), interdisciplinary cooperation (one dimension: the relationship between the social worker and the nurse to report procedures), and patient follow-up

(one dimension: patient and family follow-up during the disease course).

After the checklists were designed, their content and face validity was evaluated and approved by the professors. Then, the curricula of the related disciplines available on the website of website of deputy of education of the Ministry of Health and Medical Education^[29] were carefully and separately reviewed based on the items of the checklists.

Data analysis

After checking the coordination between the courses in the curricula with the dimensions and areas of the checklists, the number of units of those courses was converted to minutes, and then, the share of educational topics of courses that were relevant to the content standards was determined in minutes.

Results

First, we present a brief description of nursing, medical, and social work curricula and then discuss the coordination between the curricula of these disciplines with the content standards of cancer-related palliative care in Tables 1-3.

Brief description of curricula

Bachelor of Nursing in Iran consists of 8 semesters with 130 units (91 units for theoretical courses and 39 units for apprenticeship). The general medicine includes 24 units for general courses, 69.5 units for mandatory basic courses, 175.5 units for mandatory specialized courses, 16 units for specialized optional courses, and 6 units for dissertations. This discipline consists of a total of 293 units. Further, the social work is taught during 8 semesters with 135 units (111 units for theoretical courses and 24 units for field apprenticeship).^[29]

Tables 1-3 show the compliance between curricula with the content standards.

According to Table 1, the highest compliance between the nursing curriculum with the content standards of palliative care is observed in the subset of dimensions "communication, care, and management," respectively, while the lowest compliance was equally observed in the subset of dimensions "planning and educational."

According to Table 2, the minimum compliance between the medical curriculum with the standard resources was observed in the subset of dimensions "educating physicians about palliative care, facilitating access to facilities for patients and caregivers, discharge and community and home services," respectively. In other

Table 1: Compliance between the undergraduate nursing curriculum with the content standards of cancer-related palliative care in terms of units related to the standard job description

Standard nursing duties in the palliative care team	Coordination status of units in the nursing curriculum			
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content
Management				
Supervision	Basic nursing concepts	2 (T)	25	Cancer prevention and the role of the nurse
Coordination	Basic nursing concepts	2 (T)	25	Cancer rehabilitation and the role of the nurse
Home care management	Home nursing care	1.5 (T) and 0.5 (P)	300 (T) and 240 (P)	Cancer knowledge, palliative care nursing, training self-care principles to the individual and family
	Individual and family health nursing	1.5 (T)	210	Principles of home visits, application of the nursing process in assessing the health status of the family, practice providing services at home
Controlling and monitoring the procedures of other nurses Evaluating the procedures of other team members and reporting (recording) them	Nursing apprenticeship in individual, family, and community, nursing in common problems and adult nursing (the elderly 1-3)	7 (A)	2100	Follow-up home care
	Principles of nursing services management	2 (T)	70	Monitoring and evaluating the nursing performance
	Principles of nursing services management	2 (T)	70	Reporting and recording in the patient case
Leadership	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 140 (P)	Principles of reporting and documenting based on nursing process and diagnosis
	Principles of nursing services management	2 (T)	70	Leadership
Managing the challenges in palliative care and discussing the procedures taken to solve them	-	-	-	-
Educational				
Educating other nurses	-	-	-	-
Educating the individual and the family	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 600 (A)	Educating the client, patient, and family
	Patient education	0.5 (T) and 0.5 (P)	540 (T) and 1020 (P)	Concepts, education design, determining the educational needs of clients, the role of communication in education, educational methods
	Training workshop for the client and the family	-	240	(Sixth semester)
	Home nursing care	0.5 (P)	240	Self-care training for the client and family
	Nursing apprenticeship in individual, family, and community, nursing in common problems and adult nursing (the elderly 1-3)	8 (A)	2700	Educating the client and the family
Educating other health team members	-	-	-	-
Care				
Communication skills	Individual and social psychology	2 (T)	130	Interpersonal, group, and social communication
	Nursing ethics and professional communication	1 (T) and 0.5 (P)	60 (T) and 120 (P)	Physician-nurse and patient communication models
	Health status assessment	0.5 (T) and 0.5 (P)	90 (T) and 120 (P)	How to communicate and conduct an interview with the client/patient

Contd...

Table 1: Contd...

Standard nursing duties in the palliative care team	Coordination status of units in the nursing curriculum				
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content	
Evaluating and control pain and other symptoms	Mental health	2 (T)	170	Communications	
	Nursing of healthy children	1.5 (T) and 0.5 (P)	10 (T) and 100 (P and A)	Therapeutic communication	
	Communication skills workshop with client and family	-	240	(First semester)	
	Emergency nursing apprenticeship in crises and unexpected events	2 (A)	240	Establishing proper communication with the client and the physician	
	Pharmacology	2 (T)	195	Anticancer drugs, narcotic and nonnarcotic painkillers	
	Pharmacology	1 (A)	300	Familiarity with drugs and their side effects	
	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 70 (P)	Pain and pain relief concept	
	Health status assessment	0.5 (T) and 0.5 (P)	180 (T) and 240 (P)	Methods of physical, psychological, social, and spiritual evaluation of the client/patient	
	Basic nursing concepts	2 (T)	15	Application of the nursing process in caring for cancer patients	
	Emergency nursing in crises and unexpected events	1 (T) and 0.5 (P)	75 (T) and 60 (P)	Pain management	
	Nursing of pediatric diseases	3 (T)	130	Pain, its cause, its control, preparedness for diagnosis, treatments, and pain relief methods	
	Mental health nursing	2 (T)	85	Physical, psychological, social, spiritual, and family evaluation	
	Adult nursing (the elderly 1)	3 (T)	15	Nutrition in intestinal and gastric tumors	
	Focusing on the holistic needs of the individual	Adult nursing (the elderly 2)	3 (T)	100	Nursing care for pancreatic, gallbladder cancer and liver transplantation
				50	Bladder cancer care
Adult nursing (the elderly 3)		4 (T)	95	Reproductive and breast cancer care	
			50	Respiratory system cancer care	
			10	Thyroid cancer care	
Basic nursing concepts		2 (T)	25	Skin cancer care	
			110	Blood cancer care	
			10	Eye cancer care	
			10	Brain and spinal cord cancer care	
			25	Applying the nursing process in caring for cancer patients	
Providing care for specialized procedures such as ostomy and lymphedema	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 280 (P)	Basic needs	
	Adult nursing (the elderly 1)	1 (T)	15	Care related to surgery for intestinal disorders (colostomy, etc.)	
Supporting holistic needs of the individual and the family	Nursing principles and skills	2.5 (T) and 1.5 (P)	70 (P)	Addressing the patient's needs through the colostomy bag	
	Adult nursing apprenticeship (the elderly 1-3)	8 (A)	1500	Meeting different needs	
	Mental health nursing apprenticeship	1 (A)	300	Familiarity of patient and his/her family with support resources	

Contd...

Table 1: Contd...

Standard nursing duties in the palliative care team	Coordination status of units in the nursing curriculum			
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content
Listening to the patient and family, paying attention to preferences, care communication goals of patient and his/her family	Health status assessment	0.5 (T) and 0.5 (P)	10 (P)	Listening to the patient
	Holding communication skills workshop for the client and family	-	20	Paying attention to the patient's words and preferences (first semester)
Recording and reporting home care activities	Principles of nursing services management	2 (T)	70	Reporting and recording in the patient's case
	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 140 (P)	Principles of reporting and reporting based on nursing process and diagnosis
Ordering diagnostic tests and drug interventions	Nursing principles and skills	2.5 (T) and 1.5 (P)	145 (T) and 140 (P)	Medication and drug calculations
	Pharmacology	2 (T) and 1 (A)	220 (T) and 300 (A)	Anti-cancer drugs, narcotic, nonnarcotic analgesics, and familiarity with drugs and their side effects
Informing the patient of the care plan	-	-	-	-
Planning				
Cooperating in planning for the implementation of advanced care	-	-	-	-
Cooperating in designing interventions to treat pain and other symptoms	Emergency nursing in crises and unexpected events	1 (T) and 0.5 (P)	25 (T) and 60 (P)	Provide necessary interventions to calm the client
Cooperating in evaluating designed interventions	-	-	-	-
Communication				
Establishing communication between the community care system and secondary and tertiary care centers	Adult nursing (the elderly 3)	3 (T)	65	The role of the nurse in providing nursing procedures ranging from prevention to rehabilitation in noncommunicable diseases
	Nursing apprenticeship in common problems and adult nursing (the elderly 1-3)	7 (A)	1800	Nursing care from prevention to rehabilitation
	Nursing concepts	2 (T)	140	Provide nursing interventions ranging from prevention to rehabilitation
	Community health nursing	1.5 (T)	240	Familiarity with prevention and its levels

cases, there was compliance between the curricula with the standard resources.

According to Table 3, the palliative care-related educational status of social work students is in line with the content standards in all areas, except "supporting patient preferences" dimension.

Discussion

Considering the interdisciplinary approach to palliative care, the presence of nurse, physician, and social worker in this team is mandatory;^[13] therefore, these people need to know the basics of palliative care. In this regard, the

aim of the present study was to compare the educational curriculum of these disciplines in terms of the content of cancer-related palliative care with the existing standards. The results showed that there was a coordination between the curricula of these disciplines with the content standards in most of the studied dimensions, which indicates the appropriate status of palliative care education based on standard resources.^[13,28]

According to the national agreement on clinical guidelines for palliative care quality, "communication" has been introduced as the foundation of palliative care and the essence of science and art.^[30] The patient's needs can be identified^[31] and appropriate care can be

Table 2: Compliance status of medical curriculum in terms of units related to the description of standard physician duties in the palliative care team

Standard physician duties in the palliative care team	Status of related units in the medical curriculum			
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content
Giving advice and information to the patient about the diagnosis				
Giving information about the disease	Medical ethics	2 (T)	30	Truth telling
Remote monitoring and telephone counseling	Medical etiquette (4)	0.5 (P)	65 220	Telling bad news Counseling
Treatment				
Management of severe symptoms in the hospital	Preliminaries of blood diseases	2 (T)	135	Oncology emergencies
Referring and transferring patients to advanced medical centers under acute conditions	Apprenticeship social and family medicine	3 (A)	600	Applying standard principles to refer to higher levels
Prescribing painkillers such as oral morphine to treat the symptoms	Pharmacology of psychiatric drugs	0.7 (T)	90	Opioids
	Anesthesia	1.5 (P)	320	Pharmacology of opioids
Determining the diagnosis result, prognosis, course of treatment, care goals, and medication management for pain and other symptoms	Blood pharmacology	0.6 (T)	125	General rules about chemotherapy, nonopioid analgesics
	Apprenticeship social and family medicine	3 (A)	1200	Use of early detection, screening and prescription methods
Paying attention to and supporting the patient's goals and aspirations	Apprenticeship social and family medicine	3 (A)	600	Applying methods and practices of gaining support
Radiotherapy and other required treatments	Pharmacology of blood drugs	0.6 (T)	100	General rules about chemotherapy
Performing outpatient emergency care	Apprenticeship emergency medicine	4 (A)	660	Performing lumbar puncture
Giving education				
Counseling and educating patients, families, community caregivers to prevent and manage symptoms	Medical etiquette (4)	0.3 (P)	360	Patient counseling and education
	Apprenticeship social and family medicine	3 (A)	900	Measures related to prevention and education of individual, family, and community health
Receive education				
Attending palliative care training and organized services classes	-	-	-	-
Community and home services				
Referring to the community	Apprenticeship social and family medicine	3 (A)	900	Applying methods of communication with the community and social participation
Educating staff about home care	-	-	-	-
Treatment, patient care, monitoring and community-based team support	Apprenticeship social and family medicine	3 (A)	600	Evaluation of social factors affecting the patient, family, and community, screening of patient, family, and social problems
Monitoring and facilitating access to facilities for patients and care				
Preparing medicine for the patient or his/her caregivers under acute conditions	-	-	-	-

Contd...

Table 2: Contd...

Standard physician duties in the palliative care team	Status of related units in the medical curriculum			
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content
Prescribing, providing, monitoring, supporting, and maintaining the supplies needed for home care providers	-	-	-	-
Help addressing team concerns and challenges	Medical etiquette (4)	0.5 (P)	400	Principles of interprofessional cooperation and empathy
Assessing the suitability of the nursing home, hospice, rehabilitation facilities, and transitional care	-	-	-	-
Recording procedures and discharge				
Recording procedures	Apprenticeship on forensic medicine and poisonings	2 (A)	135	Legal principles and case report writing
Accompanying the team during patient discharge	-	-	-	-

provided through proper communication. According to the existing standards,^[13,28] communication in palliative care is one of the main tasks of team members, which based on the results, topics related to communication and its skills were included in the selected curricula. To explain this appropriate content coverage, it can be said that providing effective care and treatment services requires the medical team not only to assess the patient conditions but also to gain his/her trust to cooperate in the implementation of care and treatment orders. One of the most important methods to gain patient trust is proper communication; for this reason, we witnessed the presentation of the topic of communication and its skills in selected disciplines. Among the studied curricula, patient-family relationship has been addressed more frequently in social work, as compared to the other two disciplines, which may be attributed to the fact that because communication is the most important tool for the social worker to protect the rights of the client;^[32] therefore, there were many units on “communication” in this discipline. It is predicted that one of the goals of social work is to promote social capital, and because one of the dimensions of social capital is communication, for this reason the subject of communication in this field is prominent.^[33] In this regard, Zangeneh *et al.* showed that nurses’ knowledge about communication skills was moderate and they need more training in this field.^[34]

Palliative care services are offered to cancer patients using a variety of models, one of which is home care. Home care advantages include reducing the admission frequency,^[35,36] patient communication with other specialists and caregivers of the health team, and

providing maximum support to the patient and his/her caregivers.^[37]

The curriculum of all three disciplines fully covered home care. According to the researchers, the presentation of “home care” course units in all three disciplines is considering the fact that nonacute patients should not to be admitted to hospitals and receive the care services at home due to insufficient workforce. Among the members of the palliative care team, nurses play a major role in home care because they are able to provide quality care and manage consequences of diseases as much as possible without the supervision of a physician.^[38] According to the results, there were more units on “home care” in nursing curriculum than curriculum of other disciplines.

Pain and other symptoms are common in cancer patients;^[39] therefore, their quality of life can be promoted by treating and caring for them using pharmacological and nonpharmacological methods.^[37,40] The results also revealed that nursing, medical, and social work students can promote well-being of patients by passing units such as familiarity with the mechanism of pain, pain management and other symptoms, pharmacology of psychiatric drugs, and meeting emotional needs; therefore, there was coordination between three curricula with the content standards in terms of “care, management, and treatment of pain and other symptoms” dimensions. Considering that palliative care is based on pain control and other symptoms of the patient and the most effective method to eliminate these symptoms is to have a team approach, thus, we observed an appropriate content coverage in this dimension in all three disciplines. With

Table 3: Compliance status of the undergraduate social work curriculum in terms of units related to the standard job description of the social workers in the palliative care team

Standard tasks of the social worker in the palliative care team	Coordination status of units in the undergraduate curriculum			
	Name of the course	Theoretical (T)-practical (P) units and apprenticeship (A)	Allocated time in minutes	Related content
Care				
Attention to family dynamics and cultural considerations in care	Application of anthropology in social work	2 (T)	255	The concept of culture, the relationship between the effect of cultural factors in providing social work services
	Social work with family	2 (T)	180	Rights of family and its role in health
Communication with the patient and his/her family	Clinical psychology	2 (T)	255	Clinical interview
	Principles and techniques of counseling and interviewing in social work	2 (T)	1320	Definition, interview techniques, desired skills, counseling process, and techniques
	Individual social work methods (1)	2 (T)	220	Professional social work skills (communication, interview, etc.)
	Social psychology	2 (T)	160	Communications
	Principles and foundations of sociology	2 (T)	160	Social communications
Supporting patient's preferences	Apprenticeship in the field of individual social work	8 (A)	3720	Professional communication and meeting with family members
	Apprenticeship in the field of group social work	7 (A)	4200	Interviews and counseling
Assessing needs, strengths, patient and family resources	-	-	-	Relationship between interview and group counseling
Meeting emotional, financial, and legal needs	Social work with family	2 (T)	180	Needs of the family
	Empowerment methods and techniques	2 (T)	45	Empowerment
Supporting patient's preferences	Familiarity with needs, programs, and social resources	1 (T) and 1 (P)	220 (T) and 300 (P)	Utilizing resources to meet needs
Interdisciplinary cooperation				
Communication between the social worker and the nurse to report the procedures	Psychology of group social work (1)	2 (T)	220	Communications
	Principles and foundations of sociology	2 (T)	160	Social relations
	Individual social work methods (1)	2 (T)	220	Report writing
	Apprenticeship in the field of individual social work	8 (A)	1860	Report writing
	Apprenticeship in the field of group social work	7 (A)	1800	Group communication
Patient follow-up				
Follow-up of the patient and his/her family during the disease course	Individual social work methods (1)	2 (T)	55	Follow-up and monitoring

regard to this content in the curricula, we expect to see the role of palliative care team members in “controlling pain and other symptoms” dimension in cancer patients in the future. The above dimension was addressed more frequently in medical curriculum as compared to other disciplines, which could be due to the specialized task of physicians, namely prescribing specific drugs to control pain and other symptoms.^[41]

One of the methods to improve the quality of life of patients in palliative care is to pay attention to their values and beliefs.^[30] Therefore, one of the content standards of palliative care is “attention to patient preferences.” In this regard, there was the topic of “supporting patient goals and preferences” in medical and nursing curricula, which seems to be due to the attention to the “evidence-based medicine and nursing”

curricula. In evidence-based nursing and medicine, nurses and physicians pay attention to patients' values and beliefs.^[42,43] Further, paying attention to patient independence can be another reason for to pay attention to patient preferences by physicians and nurses. Unlike the other two disciplines, the above dimension was not observed in the social work curriculum. Therefore, educational planners are advised to address this issue while revising the social work curriculum.

The implementation of palliative care for chronic diseases such as cancer^[44] requires patient follow-up, so "control, monitoring, and follow-up of conditions and facilities" is one of the duties of members of the palliative care team. In this regard, "control, evaluation, follow-up, and monitoring topic was included in the Iranian nursing and social work curricula to realize one of the 13 strategies of the palliative care system strategies, namely eliminating and providing the necessary equipment and facilities. In the medical curriculum, despite the importance of the issue of "supervision, monitoring, and control," this topic was not addressed, which considering the existing units; it can be due to the fact that the Iranian physician of the palliative care team plays a major role in the patient treatment and evaluation and there is still no place for management subjects, as supervision and control.^[45]

The palliative care implementation is associated with challenges, including the lack of care and medication-education guidelines, the lack of qualified care providers, and problems with patient referrals;^[21,46] hence, "assessing the challenges in the palliative care team and managing them" was included in the medical etiquette course of the medical curriculum, but this topic was not observed in the nursing curriculum. Considering a possible rapid change in patients' conditions, the need to immediate services, and critical and challenging conditions for the palliative care team, on the one hand, and given that nurses as a core member of the palliative care team have more contacts with patients, on the other hand, they are expected to face such conflicts at all times while performing these tasks; therefore, they should receive the necessary training in this regard.

"Recording and reporting" is an important tool because it records the patient's condition, length of hospital stay, diagnostic methods, treatment, course of the disease, and communication with the patient in a specific period.^[47] Moreover, it is an important task of members of the palliative care team based on the checklists obtained from standard resources. According to the present results, the topic of "recording and reporting" was observed in all three curricula, and this coordination could be attributed to the fact that palliative care will be difficult to implement without a regular process of communication

between the main members; hence, when providing palliative care, it is important to record information provided to managers and clinical staff based on their information needs. In this regard, we expect to see proper information management among members and different units of the palliative care team considering this proper coordination in this area.

Advanced care planning for patients nearing end of life is one of the main components of care.^[48] This type of planning allows the patients to talk to the treatment team about their values and preferences regarding the decisions that are to be made for them.^[49] Despite the fact that nurses are responsible to perform this planning, Iranian nursing students do not receive any training in this regard, which, according to the existing curriculum, nurses are mainly engaged in providing services and their intellectual capacity is not used in the field of care planning. Therefore, educational planners should not look at nurses only as a tool carrying out physician orders and use all their abilities and intellectual capacities to provide better services in the future.

Patient education is one of the duties of nurses and physicians.^[13,28] Patient education promotes such things as awareness, emotional intelligence, self-efficacy, self-care, reducing dependence on others, and quality of life as one of the indicators of health.^[50-55] According to the results, medical and nursing students have been given the necessary training regarding "educating patients and their families" dimension. Since nurses have more interactions with patients and their families, they have more opportunities to provide training.^[56] Therefore, the topic of "educating patients and families" has been addressed in the nursing curriculum for almost 70 h longer than medical curriculum.

There is a significant relationship between education and quality of life of students, and quality of work life in nurses. In this regard, the results of a study showed that nurses who participated in training courses in their field performed better than their colleagues who did not receive training.^[57-59]

One of the palliative care goals is to improve the quality of life of the patient's family by meeting the physical, social, psychological, and spiritual needs^[10] by physicians, nurses, and social workers.^[28] Considering that we see the emergence of various symptoms and needs with different intensities at different levels of palliative care services (primary to tertiary), so it is important to address these needs by the main members of the team.

Since palliative care has an interdisciplinary approach,^[11] therefore, there is a need for cooperation between the members of this care team, which is a task for social

workers.^[28] According to the results, theoretical and practical units are incorporated in this dimension of social work students. To explain it, it can aid the social workers in the palliative care team act as intermediates between the patient and other team members, which is why the topic of “interdisciplinary approach and cooperation” was observed in the social work curriculum.

Another task of members of the palliative care team is to assist in patient discharge process. When a patient is discharged from the hospital, it means that he/she is ready to continue living outside the hospital with or without need an accompany, so it is important to have skilled and trained people during patient discharge. Although it was not addressed directly in the relevant curricula, it is expected that the total courses offered during the study periods in all three disciplines will promote the necessary knowledge in the team members to support the patient discharge process.

Conclusions

Although palliative care in Iran has not yet found its true place, the present study demonstrated that the nursing, medical, and social work curricula complied with the content standards in most cases, which indicates the appropriate education status for students in selected palliative care fields. Also, in addition, considering this governing educational policy, Iranian students who want to join the palliative care team after graduation are well prepared to perform their duties and patients will benefit from quality and standard care and services; however, there were also some shortcomings that can be regarded as educational needs.

After adapting the curricula to the content standards of cancer-related palliative care, educational needs were divided into five dimensions (educational, care, management, discharge, and follow-up). Required topics include providing training to health team members on palliative care and home care (education dimension), informing the patients of their care plan, cooperating in planning and designing interventions for advanced care, evaluating interventions, and paying attention to the patient’s preferences during care (care dimension), managing the challenges in the palliative care team and meeting the patient’s needs under acute conditions (management dimension), assessing the appropriateness of rehabilitation facilities, transitional care facilities, supervision, and support of care providers at home and discharge (follow-up, supervision, and discharge dimensions).

Although it is not necessary to change the curricula in general to meet these needs, it is possible to revise the

curricula according to the educational needs in some chapters of the course. For example, it reduced the units of topics, communication, teaching, pain control and other symptoms, and replaced them with other educational topics that were needed. For example, the “managing the challenges in facing the palliative care team” dimension can be covered by adding the topic of “conflict management” to the nursing management course.

Educational needs can also be met in the form of training workshops during the course of study or joint short-term and in-service training courses. It is also suggested that, as in some countries where “palliative care” is offered as an optional unit in their curricula, revision should be made in our health education system so that we can educate anyone who interested in this type of care and helps him/her start working in the same field while becoming a professional.

Considering multiple palliative care guidelines, it is also suggested to compare curricula with other guidelines in future studies to identify similarities and educational shortcomings, thereby paving the way for improvements, appropriate changes, and development of a coherent training program tailored to the needs of learners and the society. In addition to the foregoing, to benefit from the content in the curricula and to meet the educational needs identified, it is important to provide continuous training to professors and provide an opportunity for them to use the experiences of professors in leading countries to teach students about palliative care.

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Conflicts of interest

There are no conflicts of interest.

References

1. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2019. *CA Cancer J Clin* 2019;69:7-34.
2. Nazari B, Bakhshi S, Kaboudi M, Dehghan F, Ziapour A, Montazeri N. A comparison of quality of life, anxiety and depression in children with cancer and healthy children, Kermanshah-Iran. *Int J Pediatr* 2017;5:5305-14.
3. Saadat S, Yousefifard M, Asady H, Moghadas Jafari MA, Fayaz M, Hosseini M. The most important causes of death in Iranian population; a retrospective cohort study. *Emerg (Tehran)* 2015;3:16-21.

4. Reshadat S, Saeidi S, Zangeneh A, Ziapour A, Saeidi F, Choobtashani M. A comparative study of spatial distribution of gastrointestinal cancers in poverty and affluent strata (Kermanshah Metropolis, Iran). *J Gastrointest Cancer* 2019;50:838-47.
5. Rafiemanesh H, Rajaei-Behbahani N, Khani Y, Hosseini S, Pournamdar Z, Mohammadian-Hafshejani A, *et al.* Incidence trend and epidemiology of common cancers in the center of Iran. *Glob J Health Sci* 2015;8:146-55.
6. Roshandel G, Ghanbari-Motlagh A, Partovipour E, Salavati F, Hasanpour-Heidari S, Mohammadi G, *et al.* Cancer incidence in Iran in 2014: Results of the Iranian National Population-based Cancer Registry. *Cancer Epidemiol* 2019;61:50-8.
7. Beiranvand S, Zarea K, Ghanbari S, Tuvesson H, Keikhaei B. Ten years incidence of cancer in Iran; a systematic review and meta-analysis. *CEGH* 2018;6:94-102.
8. Mollica MA, Falisi AL, Geiger AM, Jacobsen PB, Lunsford NB, Pratt-Chapman ML, *et al.* Survivorship objectives in comprehensive cancer control plans: A systematic review. *J Cancer Surviv* 2020;17:1-9.
9. Musarezaie A, Moeini M, Taleghani F, Mehrabi T. Does spiritual care program affect levels of depression in patients with leukemia? A randomized clinical trial. *J Educ Health Promot* 2014;3:96.
10. World Health Organization. WHO Definition of Palliative Care. Available from: <https://www.who.int/cancer/palliative/definition/en/>. [Last accessed on 2020 Feb 20].
11. Irajpour A, Alavi M, Izadikhah A. Situation analysis and designing an interprofessional curriculum for palliative care of the cancer patients. *Iran J Med Educ* 2015;14:1047-56.
12. Ziapour A, Zokaei A, Kahrizy F. A theoretical study of the standing of social investment in the health sector. *Soc Sci* 2016;11:3682-87.
13. World Health Organization. Planning and Implementing Palliative Care Services: A Guide for Programme Managers. World Health Organization; 2016. Printed in Switzerland. Available from: <https://apps.who.int/iris/handle/10665/250584>. [Last accessed on 2020 May 21].
14. Grant M, Elk R, Ferrell B, Morrison RS, Von Gunten CF. Current status of palliative care – Clinical implementation, education, and research. *CA Cancer J Clin* 2009;59:327-35.
15. Rawlinson FM, Gwyther L, Kiyange F, Luyirika E, Meiring M, Downing J. The current situation in education and training of health-care professionals across Africa to optimise the delivery of palliative care for cancer patients. *Ecancermedalscience* 2014;8:492.
16. Silbermann M, Fink RM, Min SJ, Mancuso MP, Brant J, Hajjar R, *et al.* Evaluating palliative care needs in Middle Eastern countries. *J Palliat Med* 2015;18:18-25.
17. Weisenfluh SM, Csikai EL. Professional and educational needs of hospice and palliative care social workers. *J Soc Work End Life Palliat Care* 2013;9:58-73.
18. Mojen LK. Palliative care in Iran: The past, the present and the future. *Support Palliat Care Cancer* 2017;1:7-10.
19. Rassouli M, Sajjadi M. Palliative care in Iran: Moving toward the development of palliative care for cancer. *Am J Hosp Palliat Care* 2016;33:240-4.
20. Mojen LK, Sajjadi M, Rassouli M. Nursing education in palliative care in Iran. *J Palliat Care Med* 2015;S4:001:1-5.
21. Khoshnazar TA, Rassouli M, Akbari ME, Lotfi-Kashani F, Momenzadeh S, Haghightat S, *et al.* Structural challenges of providing palliative care for patients with breast cancer. *Indian J Palliat Care* 2016;22:459-66.
22. Hadian M, Jabbari A, Mazaheri E. What must Iran do for palliative care? A systematized review. *J Educ Health Promot* 2020;9:276.
23. Ansari M, Rassouli M, Akbari ME, Abbaszadeh A, Sari AA. Educational needs on palliative care for cancer patients in Iran: A SWOT analysis. *Int J Community Based Nurs Midwifery* 2018;6:111-24.
24. GHiyasvandian S, Zakerimoghdam M, Noori KS, Haghani H. Nursing student's attitude and motivation towards work in cancer settings. *Iran J Nurs Res* 2013;8:27-36.
25. Musharraf S. Survey of knowledge and attitude of physicians working in teaching hospitals of Kerman University of Medical Sciences about providing palliative care in 2019-2020. [Dissertation of Doctoral]. Iran; Kerman University of Medical Sciences; 2020.
26. Lehto JT, Hakkarainen K, Kellokumpu-Lehtinen PL, Saarto T. Undergraduate curriculum in palliative medicine at Tampere University increases students' knowledge. *BMC Palliat Care* 2017;16:1-9.
27. Nakamura Y, Takamiya Y, Saito M, Kuroko K, Shiratsuchi T, Oshima K, *et al.* A survey of palliative medicine education in Japan's undergraduate medical curriculum. *BMC Palliat Care* 2017;16:38.
28. Mazanec P, Reimer R, Bullington J, Coyne PJ, Harris H, Catherine Dubois M, *et al.* Interdisciplinary palliative care teams: Specialists in delivering palliative care. In: Ferrell RB, Paice JA, editors. *Oxford Textbook of Palliative Nursing*. 5th ed.. United States of America: Oxford University Press; 2019. p. 89-98.
29. Curriculums of Lessons. Available from: <http://hcmep.behdasht.gov.ir>. [Last accessed on 2020 May 10].
30. Dahlin CM, Wittenberg E. Communication in palliative care. In: Ferrell RB, Coyle N, Judith A, editors. *Oxford Textbook of Palliative Nursing*. 4th ed. United States of America: Oxford University Press; 2015. p. 81.
31. Watson M, Campbell R, Vallath N, Ward S, Wells J. Communication in palliative care. In: *Oxford Handbook of Palliative Care*. 3rd ed. United States of America: Oxford University Press; 2019. p. 34.
32. Leishmann J. Communication in Social Work. Translator: Reza Dastjerdi. Tehran: Cabzan; 2008. p. 5-13.
33. Ziapour A, Abbasi P, Ozdenk GD, Kianipour N. Study on the role of social capital in students' health at Kermanshah University of Medical Sciences: The role of demographic variables. *J Clin Diagn Res* 2018;12 (11):JOO1-JOO4.
34. Zangeneh A, Lebni JY, Azar FE, Sharma M, Kianipour N, Azizi SA, *et al.* A study of the communication skills in health care and the role of demographic variables (a case study of the nurses at the Educational, Therapeutic and Research Center of Imam Reza Hospital, Kermanshah, Iran in 2018). *J Public Health* 2019;1-7. [In Press].
35. Schroeder K, Lorenz K. Nursing and the future of palliative care. *Asia Pac J Oncol Nurs* 2018;5:4-8.
36. Lustbader D, Mudra M, Romano C, Lukoski E, Chang A, Mittelberger J, *et al.* The impact of a home-based palliative care program in an accountable care organization. *J Palliat Med* 2017;20:23-8.
37. Ramanayake RP, Dilanka GV, Premasiri LW. Palliative care; role of family physicians. *J Family Med Prim Care* 2016;5:234-7.
38. Chicoine V, Aselton P. Nurse practitioner role in home health care: Challenges and opportunities. *CNS* 2015;3:100-2.
39. Sutradhar R, Atzema C, Seow H, Earle C, Porter J, Barbera L. Repeated assessments of symptom severity improve predictions for risk of death among patients with cancer. *J Pain Symptom Manage* 2014;48:1041-9.
40. Coyne P, Mulvenon C, Paice JA. American Society for Pain Management Nursing and Hospice and Palliative Nurses Association Position Statement: Pain Management at the End of Life. *Pain Manag Nurs* 2018;19:3-7.
41. Valizadeh L, Zamanzade V, Asghari E, Motazedi Z. Nurse prescribing benefits: An integrative review. *Nurs Midwifery J* 2016;14:397-407.
42. Mirzaei K, Amini M. Effect of evidence-based Medical Education on knowledge and ability to use and apply it among clinical students of Bushehr University of Medical Sciences: A controlled

- trial. ISMJ 2016;19:398-410.
43. Ilic D, Hart W, Fiddes P, Misso M, Villanueva E. Adopting a blended learning approach to teaching evidence based medicine: A mixed methods study. *BMC Med Educ* 2013;13:169.
 44. Daher M, Doumit M, Hajjar R, Hamra R, Naifeh Khoury M, Tohmé A. Integrating palliative care into health education in Lebanon. *J Med Liban* 2013;61:191-8.
 45. Who Are the Members of the Palliative Care Team? Available from: <http://macsa.ir/fa/palliative-care-team/>. [Last accessed on 2020 Oct 05].
 46. Barasteh S, Rassouli M, Parandeh A, Vahedian-Azimi A, Zaboli R, Khaghanizadeh M. Palliative care in the health system of Iran: A review of the present status and the future challenges. *Asian Pac J Cancer Prev* 2020;21:845-51.
 47. Abbassi S, Tavakoli N. Quantitative analysis of medical record of patients admitted in the Gharazi hospital. *HIM* 2011;8:50-60.
 48. Izumi S. Advance Care Planning: The Nurse's Role. *Am J Nurs* 2017;117:56-61.
 49. Sinuff T, Dodek P, You JJ, Barwich D, Tayler C, Downar J, *et al.* Improving end-of-life communication and decision making: The development of a conceptual framework and quality indicators. *J Pain Symptom Manage* 2015;49:1070-80.
 50. Huang MC, Hung CH, Yu CY, Berry DC, Shin SJ, Hsu YY. The effectiveness of multimedia education for patients with type 2 diabetes mellitus. *J Adv Nurs* 2017;73:943-54.
 51. Raesi R, Farajzadeh Z. Evaluating the efficacy of patient-education by nurses in Birjand-based teaching hospitals in 2017. *J Nurs Educ* 2018;7(3):1-7.
 52. Memarian R, Vanaki Z. The effect of implementing clinical supervision model on the patient education outcomes. *J Health Promot Manag* 2012;1:28-36.
 53. Shahsavari H, Matory P, Zare Z, Taleghani F, Kaji MA. Effect of self-care education on the quality of life in patients with breast cancer. *J Educ Health Promot* 2015;4:70.
 54. Ghasemi SR, Zangeneh A, Rajabi-Gilan N, Reshadat S, Saeidi S, Ziapour A. Health-related quality of life in informal settlements in Kermanshah, Islamic Republic of Iran: Role of poverty and perception of family socioeconomic status. *East Mediterr Health J* 2019;25:775-83.
 55. Moradi F, Tourani S, Ziapour A, Abbas J, Hematti M, Moghadam EJ, Aghili A, Soroush A. Emotional Intelligence and Quality of Life in Elderly Diabetic Patients. *Int Q Community Health Educ*. 2020 Oct 21:272684X20965811. doi: 10.1177/0272684X20965811. Epub ahead of print. PMID: 33086936.1-6. [In Press].
 56. Raberi MP, Jamshidi N, Soltani Nejad A, Sabzevari S. Effects of nurse education on both patients' satisfaction of teaching patients, and nurses' knowledge, attitude and performance in intensive care units of teaching hospitals. *J Health Care* 2011;13:30-7.
 57. Ziapour A, Kianipour N. Health-related quality of life among university students: the role of demographic variables. *J Clin Diagn Res* 2018;12(3):1-4.
 58. Lebni JY, Toghroli R, Abbas J, Kianipour N, NeJhaddadgar N, Salahshoor MR, *et al.* Nurses' work-related quality of life and its influencing demographic factors at a public hospital in Western Iran: A cross-sectional study. *Int Q Community Health Educ* 2020; 0(0):1-9.
 59. Mansourian M, Ziapour A, Kazemian M, Damanabad ZH, Rastegarimehr B, Mirzaei A, *et al.* Assessment of educational performance of nurses in neonatal intensive care unit from parents' perspective. *J Educ Health Promot* 2020;9:8.