A Fuzzy Delphi Study to Develop An Interdisciplinary Core Competency Framework on End-of-Life Care

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BACKGROUND

The WHO[1] has advocated that health and social care professionals should be equipped with a minimum level of competency in palliative care as a matter of urgency. A common core competency framework on end-of-life care (EoLC) should be in place to provide directions on what are the basic competency in EoLC required of health and social care professionals of various disciplines.

Aims of the Study

This study aims to develop an interdisciplinary core competency framework on EoLC that is shared by health and social care professionals.

METHODOLOGY

Study design

A pool of items for the core competency framework were developed through literature review on published national/international competency frameworks on palliative and EoLC with health and social care professionals as target. Thirty-three competency statements were identified and categorized into 7 competency domains, namely: (1) overarching values and knowledge, (2) self-care and self-reflection, (3) communication skills, (4) optimizing comfort and wellbeing (symptom management), (5) psychosocial-spiritual care, (6) EoLC decision making, and (7) bereavement care.

Opinions on the appropriateness of the item pool was sought from experts via the Fuzzy Delphi method (FDM). FDM integrates the concept of fuzzy set theory in Delphi study to mathematically represent and deal with uncertainty and vagueness in respondents' answers in Delphi study. FDM involves (1) firstly translating a fixed-score opinion by each expert into a fuzzy scoring that consists of three values, followed by (2) a defuzzifcation process that transform the fuzzy scoring to a Crisp number that determines the level of importance of that item as suggested by experts[2,3]. The appropriateness of an item was determined by two criteria[4] including a crisp value larger than .7 (range 0-1), and an expert agreement ≥75%. A threshold value d, which is the difference between an expert's fuzzy number on an item and the averaged fuzzy value for that item, was computed for each expert on each item. A threshold value d less than or equal to .2 for suggests agreement with the group. The % of experts with d value ≤.2 was calculated as the % of agreement for each item

Two rounds of survey were conducted with health and social care professionals who (1) are clinical or research leaders in the field of palliative care or EoLC for adults, and (2) have been practicing/providing training on EoLC in Hong Kong. These experts were also asked to comment on the items and propose extra items when needed in the round 1 survey. In both rounds, they were asked to rate the importance of each item on a 7-point Likert scale.

RESULT

Participants

Forty-one experts took part in round 1, and 35 continued with round 2. 8 physicians, 9 nurses, 14 social workers and allied health professionals, and 4 researchers participated.

Expert consensus

In round 1, experts rated high level of importance on all 33 items, with median values ranged between 6-7 on a 7-point scale. The Crisp values for the items ranged between .81 and .94, with the percentages of experts' consensus all above 85%. All items were kept and four additional items were proposed by experts in round 1, including two items on self-competence in death work, one item on supporting carer, and one item on

RESULT (CON'T)

pre-death bereavement care. In round 2, experts' consensus and the rated level of importance further improved, with the Crisp values for items ranged between .85 and .95, and percentages of experts' agreement at least 94.3%. The final competency framework consisted of 37 items. Although agreed that all competency domains are extremely important in EoLC, experts commented that some domains might not be the key role of specific discipline(s). For instance, the domain "Optimizing comfort and wellbeing of patients" might be more important for doctors and nurses than social care workers, while the domains "Psychosocial and spiritual care" and "Bereavement care" are more important for social care workers.

Table 1. Results from two-round FDM

| | | Round 2 (N=35) | | |
		Median	% consensus	Crisp Value
Domain 1: Overarching values and knowledge	Understand the definition of EoLC and apply its principels	7	97.0%	.95
	Beware of the cultural and religious influence on EoLC	7	100.0%	.93
	Use of a holistic approach in assessment and care planning	7	100.0%	.95
	Person-centered and family-centered EoLC	7	100.0%	.95
	Incorporate PC approach to care of patients with advanced illness	7	97.1%	.93
Domain 2: Self-care and self-reflection	Be conscious of personal value and belief towards death	6	94.30%	.91
	Cope with emotions induced by EoLC provision	6	100%	.89
	Copd with existential distress induced by EoLC provision	6	100%	.89
	Maintain appropriate professional boundaries	6	91.40%	.90
	Undertaking reflective practice	6	91.40%	.90
	Practice self-evaluation and engage in professional development	6	100%	.89
	Practice self-care	7	91.40%	.91
Domain 3: Communication skills	Use different types of communication (verbal and non-verbal)	6	97.10%	.91
	Communicate effectively to main therapeutic helping relationship	6	97.10%	.92
	Communicate on issues surrounding death sensitively	7	97.10%	.94
	Communicate effectively with other members in the team	6	97.10%	.92
	Under the role and restrict of your/other professionals in EoLC team	6	97.10%	.91
Domain 4: Optimizing comfort and well-being of patients	Understand physical, psychosocial, spiritual factors in symptsoms	7	100%	.93
	Understand therapeutic/ specialist services for symptom managemen	7	97.10%	.93
	Recognize/accept the suffering of patients, whatever their experien	7	100%	.94
	Identify and assess patient's pain and symptoms	7	100%	.93
	Know the signs for dying and provide support accordingly	7	100%	.93
	Support people in their tasks as a carer	7	100%	.93
Domain 5: Psychosocial and spiritual care	Provide psychosocial support to patients in EoL and their families	7	97.10%	.93
	Provide spiritual care to patients in EoL and their families	6	94.30%	.91
	Apply evidence-based psychosocial intervention in EoL	6	97.10%	.85
	Assess psychosocial-spiritual needs of patient and families	6	100%	.87
	Provide information of other supporting sersvices	6	97.10%	.86
Domain 6: End-of-life decision making	Engage patients and families in discussions of ACP	7	100%	.93
	Apply ethical principles in care planning and decision making	7	100%	.95
	Support and encourage patients and families to make decision	7	94.30%	.92
	Handle differences of opinions in families regarding EoLC decisions	6	94.30%	.91
Domain 7: Bereavement care	Understand basics of grief, mourning and bereavement care	7	100%	.93
	Respect the physical, psychosocial and spiritual responses to grief	7	100%	.94
	Assess and identify the grief and bereavement needs of families	6	97.10%	.92
	Provide pre-mortem bereavement care to family members	6	97.10%	.90
	Provide bereavement care to bereaved families and individuals	6	100%	.87

Note. Red highlight are items newly proposed by experts in round 1

CONCLUSION

A 7-domain common core competency framework on EoLC has been developed using FDM that helps with dealing with vagueness in response in traditional delphi study. The developed framework provides directions on what are the common competency required of different disciplines in healthcare and social care in providing basic EoLC. However, differentiated level of proficiency might be required of different disciplines in some of the competency domains. Nevertheless, all disciplines should have at least the basic understanding on these domains.

ACKNOWLEDGEMENT

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