

Knowledge and attitudes toward end-of-life care among community health care providers and its influencing factors in China

A cross-sectional study

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Abstract

A majority of nurses struggled with a negative emotion of anger, doubt, fear, or anxious, uncomfortable in the face of death and dying. However, little was known about community health care providers' in China. Therefore, we conducted a study to investigate their knowledge and attitudes toward end-of-life care and analyze its influencing factors. To provide reference for developing effective strategies to promote end-of-life care in China.

A total of 132 community health care providers of 10 community health care centers in Changzhi city were investigated by a Questionnaire of Knowledge and Attitudes toward Caring for the Dying from May, 2017 to December, 2017, and data was analyzed by SPSS 22.0 software.

Of the 132 community health care providers who were under investigation, 70 knew about hospice care, but they rated their overall content on end-of-life care as inadequacy, especially in communication skills and knowledge of pain management. The average score of attitudes was 3.47 (SD=0.44), the lowest score was in the subscale of nurse–patient communication, which was 2.91 (SD=0.65). Health care providers who had worked for more than 11 years, who had experiences of the death of relatives or friends, and who had previous experiences of caring for terminal patients had more positive attitudes toward caring for the dying ($P < .05$ for all). There was a significant relationship between community health care providers' attitudes toward death and their attitudes toward end-of-life care ($r = -0.282$, $P < .01$). The significant predictors of attitudes toward end-of-life care were attitudes toward death ($\beta = -0.342$), experiences of the death of relatives ($\beta = -0.207$), experiences of caring for the dying ($\beta = 0.185$), and working experience ($\beta = 0.171$).

Community health care providers had positive attitudes toward end-of-life care, but they lacked systematic and professional knowledge and skills of caring for the terminal patients. Education is the top priority. It is imperative to set up palliative care courses and life-death education courses, establish an indigenous end-of-life care model, and improve policies, systems, and laws to promote end-of-life care.

Abbreviation: DAP-R-C = Chinese version of the Death Attitude Profile-Revised.

Keywords: attitude toward end-of-life care, community health care provider, death attitude, hospice care, palliative care

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1. Introduction

End-of-life care is an approach that improves the quality of life of patients and their families facing problems associated with life-threatening illnesses, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual. Demand for end-of-life care is expected to grow substantially with an increase of aging population and the complexity of chronic diseases, and this has implications for all health professionals, irrespective of their specialty or level of preparation. Studies have shown that medical staff lacked the knowledge, skills, and experience required to provide end-of-life care.^[1–3] Nurses' attitudes toward dying have not kept pace with consumer attitudes and expectations.^[4] A majority of nurses hold negative attitudes toward end-of-life care, struggled with a negative emotion of anger, doubt, fear, or anxiety, and uncomfortable in the face of death and dying.^[5–8] Personal attitudes toward death may influence attitudes toward caring for the dying patients.

End-of-life care was introduced into China in the late 1980s, but it has not been paying attention in the past decades. With a late start, a weak basis, and a narrow coverage, it was still at a primary stage of development. In recent years, National Health Commission of the People's Republic of China called upon all government hospitals to establish end-of-life care centers, and supported nursing homes and community health care centers to set up end-of-life care units. Under this background and the national health system reforming in China, community participation in end-of-life care has been greatly improved. Community health care providers have a unique and primary responsibility to ensure individuals experiencing a peaceful death at the end-of-life in community health center. However, the majority of previous reviews related to end-of-life care focused on nurses, few studies examined the attitudes of community health care providers. Therefore, we conducted a cross-sectional study to investigate community health care providers' knowledge and attitudes toward end-of-life care, and analyze its influencing factors. The aims of the study were to provide reference for effective strategies to promote end-of-life care in China. Our research questions were as follows:

Question 1: What is the level of knowledge about end-of-life care among community health care providers?

Question 2: What attitudes toward end-of-life care do community health care providers hold?

Question 3: What demographic (such as gender, age, working experience, education, professional title position, income, and religious beliefs), previous experiences of caring for the dying, death attitude covariates predict community health care providers' attitudes toward end-of-life care?

Question 4: Is attitude toward death associated with attitude toward end-of-life care? What is the relationship between attitude toward death and attitude toward end-of-life care?

2. Materials and methods

2.1. Participants

A total of 132 community health care providers in 10 community health care centers in Changzhi city were recruited by cluster sampling method. The inclusion criteria were community health care providers who had worked for more than 1 year in

community health care centers, had obtained the nurse certificates or doctor qualification certificates, and agreed to participate the study and signed the informed consent. The exclusion criteria were assistant medical practitioners, or medical students and interns. This study was approved by Ethics Committee of Changzhi Medical College.

2.2. Methods

A cross-sectional survey was conducted. Participants were investigated by a Questionnaire of the Knowledge and Attitudes toward end-of-life care. The design of the questionnaires was based on relevant literatures. It consisted of 5 parts:

- (1) Basic information including gender, age, education background, professional title, position, working experience, and religious belief.
- (2) Knowledge of end-of-life care: the level of knowledge, access to knowledge, and demands for knowledge.
- (3) Experiences of caring for the dying: including experiences of the death of relatives or friends, experiences of caring for terminal patients, and experiences of end-of-life care education or death education.
- (4) Bradley Attitude Questionnaire: community health care providers' attitudes toward end-of-life care were measured with the 12-item Bradley Attitude Questionnaire, which was developed by Yale University School of Medicine.^[9] It consisted of 3 subscales: professional responsibility and role, effectiveness of end-of-life care, and nurse–patient communication. Scores ranged from 1, indicating strongly disagree, to 5, indicating strongly agree. The total score was 12 to 60, and the higher the score, the more positive attitudes. The reliability and Cronbach alpha coefficient of the scale was 0.86 and 0.79, respectively.
- (5) Chinese version of the Death Attitude Profile-Revised (DAP-R-C).

Health care providers' attitudes toward death were measured with the Chinese version of the DAP-R, which was designed by Gesser et al^[10] to assess personal attitudes toward death and later was revised by Wong et al in 1994.^[11] The DAP-R-C was composed of 5 components and 25 items that were scored from 1 to 5, including fear of death, avoidance of death, and acceptance of death (approach acceptance, escape acceptance, and natural acceptance of death). The possible score range was 25 to 125, with higher scores indicating more positive or negative attitudes toward death. The Cronbach alpha coefficient of the profile was 0.875, which indicated that the DAP-R-C had good internal consistency.

2.3. Data collection

The investigation was carried out by project team members under the guidance of the instructor from May, 2017 to December, 2017. Community health care providers were informed of the purpose of the study and had to give their signed informed consent before distributing the questionnaires. After completing, the questionnaires were put into a closed box in nursing office, and were taken back by investigators 2 weeks later. Seven community health care providers gave up halfway due to the long time they spent on filling in the questionnaire. Questionnaires lacking critical information were eliminated. On the whole, 145 questionnaires were distributed in all, and 138 were collected,

with a response rate of 95.2%. Of 138 collected questionnaires, 132 were valid, with an effective rate of 95.7%.

2.4. Statistical analysis

Statistical analyses were performed by SPSS software, version 22.0 (SPSS). The missing values were treated with the expectation-maximization algorithm. Descriptive statistics were used to estimate the frequencies, rate, constituent ratio, means, and standard deviations of the study variables. The intragroup difference of measurement data was detected with independent-samples Student *t* tests and one-way ANOVA. The correlation between 2 variables was assessed with Pearson correlation analysis. Multivariate linear regression analyses were used to examine the effect of all factors.

3. Results

3.1. Basic information of the community health care providers

A total of 132 community health care providers were enrolled in the study. It showed that the mean age was 36.44 years (SD = 9.63 years) and the average working time was 13.58 years (SD = 10.86 years), as shown in Table 1.

3.2. Awareness, knowledge, and knowledge demands of community health care providers for end-of-life care

Of the community health care providers who participated, 83.3% (110/132) felt that end-of-life care was important and said that they knew about hospice care, but 90.9% (120/132) rated their knowledge about end-of-life care as inadequacy. Four community health care centers had publicized end-of-life care to the public. Books and journals were the main ways for

Table 1
Basic information of community health care providers (N = 132).

Variable	Group	n	%
Gender	Male	20	15.2
	Female	112	84.2
Age, y	21–30	40	30.3
	31–40	52	39.4
	41–50	26	19.7
	≥51	14	10.6
	Working experience, y	≤3	20
	4–5	18	13.6
	6–10	38	28.8
	≥11	56	42.4
Education level	Secondary specialized degree	13	9.8
	Associate degree	57	43.2
	Bachelor degree	62	47.0
Professional title	Primary	87	65.9
	Secondary	30	22.7
	Senior	15	11.4
Position	Nurse	96	72.7
	Doctor	36	27.3
Monthly income	<1000 yuan	14	10.6
	1000–2000 yuan	82	62.1
	2000–3000 yuan	30	22.7
	>3000 yuan	6	4.5
Religious beliefs	Yes	2	1.5
	No	130	98.5

Table 2
Community health care providers' experiences of caring for the dying (N = 132).

Items	Group	n	%
Experiences of relatives' death	Yes	115	87.1
	No	17	12.9
Experiences of friends' death	Yes	70	53.0
	No	62	47.0
Experiences of caring for the dying	Yes	78	59.1
	No	54	40.9
End-of-life care education	Yes	70	53.0
	No	62	47.0
Death Information	Yes	44	33.3
	No	88	66.7

community health care providers to acquire knowledge about end-of-life care, followed by working experience, school education, lectures or seminars, TV or Internet, and voluntary activities. A total of 90.9% (120/132) hoped to learn professional knowledge and skills from standardized on-site training, lectures, short-term course, or online learning.

3.3. Experiences of caring for the dying of health care providers

Of the community health care providers who participated, 87.1% (115/132) had experiences of their relatives' death, 53.0% (70/132) had experiences of the death of friends. A total of 59.1% (78/132) had previous experiences of caring for the dying, 53.0% (70/132) had end-of-life care education, and 33.3% (44/132) had received death information, as shown in Table 2.

3.4. Community health care providers' attitudes toward end-of-life care

The average score of attitudes toward end-of-life care was 3.47 (SD = 0.44). Professional responsibility and role was 3.69 (SD = 0.72), effectiveness of end-of-life care was 3.61 (SD = 0.66), and nurse–patient communication was 2.91 (SD = 0.65), which was the lowest score, as shown in Table 3.

3.5. Community health care providers' attitudes toward death

The total score of attitudes toward death was 3.06 (SD = 0.44), the 3 subscales with high scores were natural acceptance of death was 3.84 (SD = 0.57), fear of death was 3.13 (SD = 0.76), and avoidance of death was 3.02 (SD = 0.71), as shown in Table 4.

Table 3
Mean scores of health care providers' attitudes toward end-of-life care.

Subscales	Mean	SD
Professional responsibility and role	3.69	0.72
Effectiveness of end-of-life care	3.61	0.66
Nurse–patient communication	2.91	0.65
Total scale	3.47	0.44

The item range for subscales = 1–5. SD = standard deviation.

Table 4
Mean scores on the DAP-R-C subscales.

Scale	Subscales	Mean	SD
DAP-R-C	Natural acceptance	3.84	0.57
	Fear of death	3.13	0.76
	Death avoidance	3.02	0.71
	Escape acceptance	2.68	0.84
	Approach acceptance	2.66	0.78

The item range for DAP-R-C = 1–5. DAP-R-C = Chinese version of the Death Attitude Profile-Revised, SD = standard deviation.

3.6. Correlation analysis of community health care providers' attitudes toward death and their attitudes toward end-of-life care

The relation between attitudes toward death and attitudes toward end-of-life care showed a significant trend ($r = -0.282$, $P = .001$). Positive attitudes toward end-of-life care were negatively correlated with fear of death ($r = -0.250$, $P = .004$), avoidance of death ($r = -0.354$, $P = .000$), and escape acceptance of death ($r = -0.192$, $P = .028$), respectively, as shown in Table 5.

3.7. Comparison of attitudes toward end-of-life care between different groups

Attitudes toward end-of-life care of community health care providers who had worked for more than 11 years, had experiences of the death of relatives or friends, and had previous experiences of caring for the dying were more positive than those had worked for less than 11 years, had no experiences of the death of relatives or friends, or had no experiences of caring for the dying ($P < .05$ for all), as shown in Table 6.

3.8. Analysis on influencing factors of attitudes toward end-of-life care

The regression model which predicted community health care providers' attitudes toward end-of-life care was statistically significant ($F = 8.626$, $P = .000$). The significant predictors of attitudes toward end-of-life care were attitudes toward death ($\beta = -0.342$), working experience ($\beta = 0.171$), experiences of the death of relatives ($\beta = -0.207$), and experiences of caring for the dying ($\beta = 0.185$). This model explained 18.9% of the variance in the Attitudes toward end-of-life care Scale total scores ($R^2 = 0.214$, adjusted $R^2 = 0.189$), as shown in Table 7.

4. Discussion

4.1. Community health care providers lacked professional knowledge of hospice care

Although the majority of community health care providers (83.3%) felt that end-of-life care was important and said that

they knew about hospice care, unfortunately, 90.9% rated their specific content on end-of-life care as inadequacy, especially in communication with dying patients and their family members, pain management, and symptoms management. In item of "whether sufficient analgesics can be prescribed for patients at the end-of-life to avoid pain," the score was low, scored 3.31 ± 1.12 . These findings were consistent with Ferrell et al, Arantzamendi et al, Holms et al, and Prem et al^[1–3,12] who found that nurses lack knowledge, skills, and experience required to provide end-of-life care. In contrast, Cramer et al's^[13] research showed that nurses had relatively rich knowledge about end-of-life care and 40% of them had received end-of-life care educations in the past 5 years. It implied that the development of end-of-life care was uneven among countries and regions. In 2017, National Health Commission of the People's Republic of China proposed that end-of-life care, hospice care, and palliative care should be collectively referred to as palliative care. However, the term palliative care has been frequently used interchangeably with "hospice care," "end-of-life care," and "terminal care," generating confusion. The knowledge system of palliative care was abundant, including survival prediction, prognosis evaluation, disease trajectory prediction, symptom control, comfort care, pain management, psychological and spiritual care, ethical, and legal considerations and choices, which required specialized learning.

Undergraduate nursing education lays the foundation for end-of-life care; however, the content of end-of-life care had not been well integrated into the curricula. Schools should be responsible for the bad performance of their students in caring for the dying. There were only 3 textbooks, "Fundamental Nursing," "Community Nursing," and "Geriatric Nursing" which involved hospice care in China. Among the 5277 pages of these 3 textbooks from 2014 to 2018, only 194 pages were related to end-of-life care, which equated to 3.68% of the content. Only 17 pages were related to death education, which equated to 0.32% of the content. It was not until 2017 that palliative care was written into "Community Nursing," which was only 2 pages. Furthermore, there were very few affective components in curricula for palliative care. We lacked qualified teachers to develop the death education. Community health care providers had not received extensive education on how to care for dying patients and their families. Our study also showed that knowledge and skills of end-of-life care were in high demand, but the access was limited to books and journals. It was imperative to explore an effective and efficient approach to educate students and train community health care providers about palliative care, both in didactic education and clinical experience.

4.2. Community health care providers had positive attitudes toward end-of-life care, but lacked communication skills and knowledge of pain management

As shown in Table 3, the average score of community health care providers' attitudes toward end-of-life was 3.47 (SD = 0.44),

Table 5
Correlation between attitudes toward death and attitudes toward end-of-life care.

	Fear of death	Death avoidance	Natural acceptance	Approach acceptance	Escape acceptance	Total score
Attitudes toward end-of-life care	-0.250**	-0.354**	0.122	-0.119	-0.192*	-0.282**

* Means $P < .05$; ** means $P < .01$.

Table 6**Comparison mean scores of attitudes toward end-of-life care between different groups.**

Variable	Group	n	Mean	SD	t/F	P
Gender	Male	20	104.80	8.27	0.993	.323
	Female	112	102.46	9.92		
Age, y	21–30	40	40.07	5.30	2.287	.082
	31–40	52	41.77	6.71		
	41–50	26	41.94	4.45		
	≥51	14	44.00	3.41		
	≥51	14	44.00	3.41		
Working experience, y	≤3	20	39.33	5.24	3.128	.028
	4–5	18	39.56	5.40		
	6–10	38	40.44	5.60		
	≥11	56	43.04	5.25*		
Education level	Secondary specialized degree	13	40.89	3.03	2.486	.087
	Associate degree	57	40.55	4.93		
	Bachelor degree	62	42.61	5.67		
Professional title	Primary	87	41.09	5.10	1.279	.282
	Secondary	30	42.03	5.12		
	Senior	15	43.27	5.95		
Position	Nurse	96	40.99	4.98	−2.050	.042
	Doctor	36	43.06	5.58		
Monthly income	<1000 yuan	14	40.86	4.09	1.291	.280
	1000–2000 yuan	82	41.04	5.38		
	2000–3000 yuan	30	42.93	5.53		
	>3000 yuan	6	43.33	1.37		
Religious beliefs	Yes	2	39.00	0.00	−0.697	.487
	No	130	41.59	5.24		
Experiences of caring for the dying						
Experiences of relatives' death	Yes	115	42.06	5.07	3.647	.000
	No	17	36.55	3.96		
Experiences of friends' death	Yes	70	42.49	5.06	2.212	.029
	No	62	40.50	5.22		
Experiences of caring for the dying	Yes	78	42.80	4.90	3.439	.001
	No	54	39.75	5.17		
End-of-life care education	Yes	70	42.23	5.10	1.594	.113
	No	62	40.79	5.28		
Death information	Yes	44	42.06	4.77	0.785	.434
	No	88	41.30	5.43		

F=one-way ANOVA tests, P=significance, t=t tests. ANOVA=analysis of variance, SD=standard deviation.

* P<0.001

which was above the average, indicating that community health care providers in Changzhi city had positive attitudes toward care for the dying, especially in professional responsibility and role, effectiveness of end-of-life care, scored 3.69 ± 0.72 and 3.61 ± 0.66 , respectively. This was due to the development and effect of palliative care. Palliative care concept has gradually been recognized and concerned by the majority of medical staff. Studies has shown that palliative care, with its focus on management of symptoms, psychosocial support, and assistance with decision making, has the potential to improve patients'

quality-of-life, mood and reduces the use of medical services.^[14–18] What is more, previous researches^[18–22] have shown that patients receiving early palliative care have longer survival and the better understanding of prognosis compared with patients receiving standard care.

Our results showed that doctor/nurse–patient communication scored lowest. The subscale of nurse–patient communication mainly referred to breaking bad news. Our study showed that community health care providers agreed that most terminally ill patients did not want to be informed of advanced disease, and

Table 7**Multiple regression analysis predicting community health providers' attitudes toward end-of-life care.**

Variables	B	SE	β	t	P	95.0% CI for B	
						Lower	Upper
Constant	59.928	3.737		16.038	.000	52.534	67.322
Attitudes toward death	−0.161	0.038	−0.342	−4.233	.000	−0.237	−0.086
Working experience	0.082	0.041	0.171	2.001	.047	0.001	0.164
Experiences of relatives' death	−2.463	0.938	−0.207	−2.599	.010	−4.339	−0.588
Experiences of caring for the dying	−1.928	0.869	−0.185	−2.218	.028	−3.648	−0.208

Adjusted $R^2=0.189$, B=unstandardized coefficients, P=significance, $R^2=0.214$, β =standardized coefficients, t=B/SE. CI=confidence interval, SE=standard error.

they were inclined to conceal the truth. This could be explained by fear and worry. Death was a taboo in traditional Chinese culture, people considered it unlucky to talk about death and was afraid of it. If someone was diagnosed with incurable disease, his friends or relatives, in most cases, would conceal the truth and comfort him that he would recover in the future. However, Chinese previous researches showed that more than half of the citizens wanted to be informed when they facing terminal illnesses.^[23] A total of 92.9% of advanced cancer patients hoped to be informed of their real conditions by doctors and family members.^[24] Another reason was that the communication skills of medical staff were relatively weak. Many clinicians were not satisfied with their bad news communication skills.^[25] In particular, they performed poorly in terms of “telling methods,” “emotional support,” and “providing additional information.”^[26,27] Previous studies have identified lack of communication skills training and unclear communication roles as barriers to communication among nurses and physicians.^[28–30] Absent or poor-quality communication resulted in confusion, reduced satisfaction, poor quality-of-life.^[31] Terminally ill hospitalized patients and their families consistently ranked effective communication and shared decision-making among their top priorities.^[32]

Whether, when, and how much information to tell terminal patients is in a dilemma. Communication is an art. It includes many elements, such as comparison, listening, caring, empathy, compassion, and sharing. These skills could not be improved by practical experience alone, rather than improved by education. Setting, Perception, Invitation, Knowledge, Empathy, Strategy and Summary (SPIKES) strategies worked in breaking bad news.^[33] We could incorporate these contents into our teaching and training curricula and practice.

4.3. Analysis on influencing factors about community health care providers' attitudes toward end-of-life care

4.3.1. Working experience and experiences of caring for the dying. As shown in Tables 6 and 7, community health care providers who had worked for more than 11 years, had experiences of the death of relatives or friends, and had previous experiences of caring for terminal patients had more positive attitudes toward end-of-life care ($P < .05$ for all). Experiences of the death of relatives or caring for terminal patients were predictors of positive attitudes. It was consistent with previous studies. Hussin et al and AltGehrman^[34,35] showed that working experience has positive impact on nurses' attitudes toward end-of-life care. Hagelin et al and Chow et al^[36,37] found that only clinical experience influences competence in end-of-life care and attitudes.

It can be attributed to the following:

- (1) Participants who had worked for more than 11 years may have witnessed or experienced patients' death process firsthand during their clinical practice. When they took care of the dying patients, many complicated matters such as making clinical decisions, breaking bad news, communicating with terminal patients, and their families would be encountered. These clinical experiences could enrich their knowledge, helped them to clarify their responsibilities and roles.
- (2) Participants who had ever experienced relatives', friends', or patient's death may establish their own philosophical values to life and death and understand the true meaning of life and death. They were more likely to recognize death as a natural part of life that everyone would experience, rather than holding a negative view of death.

- (3) It may be the result of empathy. Empathy, which was based on a cognitive pattern associated with self-experience, was the ability to recognize and understand that “your joy was my joy, your pain was my pain.” People who had faced the death of a loved one or friends were more likely to empathize with their pain and understand the meaning of end-of-life care.

Therefore, community health care providers should integrate themselves into patients, to really understand their lives and thoughts, and build a relationship of mutual understanding, respect, and care for the dying. It is also the basis of communication. And experienced staff should support the novice by encouraging them to express their feelings. It will help to reduce the stress and death anxiety experienced by new staff while providing end-of-life care.

4.3.2. Position. Our study also found that general practitioners had more positive attitudes than community nurses. This may be due to the different responsibilities and roles of doctors and nurses. Doctors were mainly responsible for the diagnosis and treatment in clinical practice, while nurses implemented nursing measures according to the treatment plans. Therefore, doctors had better knowledge as well as skills of medical decision-making, symptom control, and pain management. However, the nurses' role in end-of-life care has expanded in recent years to include advanced directives, do-not-resuscitate decisions, and palliative care discussions,^[38] community nurses were required to learn new knowledge about palliative care.

4.3.3. End-of-life care education or death information. Our study showed that end-of-life care education or death information did not make a significant difference in the attitudes toward end-of-life care of community health care providers' (Table 6). It was not in accordance with previous results that students' attitudes toward care of the dying improved after a course in palliative care or death education.^[5,39,40] Previous studies^[41–46] also found that participants in a death education course show a decline in negative attitudes, death education reduced the participants' anxiety and fear of death. One possible explanation for this result was that there were no independent palliative care institutions, no palliative care inpatient wards in hospitals, and no specialized teachers in Changzhi city. In December 2018, Palliative Care Education Training Centre was formally established in West China Fourth University Hospital of Sichuan University, which was the first education training center for palliative care in China. The end-of-life care education in China was at the elementary stage, there was still a long way to reach the stage of professional. Although end-of-life care education or death information did not have a significant effect on attitudes toward care for the dying in our study, it was important to note that participants who had received end-of-life care education or death information did have higher mean scores, (42.23 vs 40.79) and (42.06 vs 41.30). It reminded us that a well-organized, systematic exposure to didactic, and experiential components of palliative care was imperative. Theoretical knowledge along with experience at hospice, the anatomy laboratory, the funeral home, and role play may be helpful in end-of-life care learning.

4.3.4. Religious belief. In our study, religious belief was shown to have no effect on attitudes toward care for the dying (Table 6). However, it should be cautious that only 2 participants who had religious belief. Ozbasaran et al's^[47] research with a larger sample size found that religious belief has a positive impact on nurses' attitudes toward end-of-life care. It showed that religious

belief plays an indispensable role in satisfying people's spiritual needs. More researches are needed to apply religious belief to the practice of end-of-life care.

4.3.5. Death attitude. Our study showed that 3 subscales of natural acceptance of death, fear of death, and avoidance of death with higher scores. Fear of death, avoidance of death, and escape acceptance of death were negatively correlated with attitudes toward end-of-life care. It indicated that community health care providers with a greater fear of death or dying process, or avoided of thinking of death as much as possible, or viewed death as an escape from a painful experience held less positive attitudes toward caring for dying patients. Previous study of Rooda et al and Wang et al^[48,49] showed that death education can change students', medical staffs', and patients' attitudes toward death, having a positive effect on people's view of death and can alleviate people's anxiety and fear of death. It reminded managers and educators that death education should be strengthened in China.

5. Implications

The regression model showed that community health care providers' attitudes toward end-of-life care were predicted by death attitudes, working experience, experiences of the death of relatives, and experiences of caring for the dying, which accounted for 18.9% of the variance in the attitudes toward end-of-life care. It suggested that community health care provider' attitudes toward end-of-life care were influenced by a variety of variables that were not included in this study. Public's insufficient knowledge of end-of-life care, imperfect medical insurance system, imperfect policies, laws and systems of palliative care, and the lack of localized end-of-life mode also influenced community health care provider' attitudes toward end-of-life care in China. The development and promotion of end-of-life care was a comprehensive process involving government, medical and health institutions, the public, and environment. From the government's point of view, it was necessary to establish laws on palliative care to protect rights and interests of patients and medical staff. From the perspective of medical and health institutions, the state has issued the "Hospice Basic Standard," "Hospice Management Instrumentation," and "A Guide to End-of-Life Care." Medical and health institutions need to formulate regulations and rules for the administration of hospice, clarify the job responsibilities of staff, and establish a Quality Management System. Nursing school's End-of-life curricula have been lacking both of didactic education and clinical experiences. A well-organized, systematic exposure to didactic and experiential components of palliative care education and death education is imperative. Moreover, it is necessary to explore localized hospice care mode. Only with the efforts of the whole society, the patients will be able to go through the final stage of life painlessly, comfortably, and with dignity.

6. Limitation

There are some limitations that should be considered. Firstly, the small sample size of this study could not represent the perceptions of participants from community health care centers in different geographic areas in China. Because of the cross-sectional design of this study, causality among the variables cannot be established. Data collection methods of observations and interviews are

needed to understand this area more clearly. Despite these limitations, the results of this study do provide valuable insight about how community health care providers perceive end-of-life care, death, and caring for the dying of China.

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