Clinical Interventions in Aging Dovepress

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Construction of a Home Hospice Care Program for Older Adults at the End of Life with Chronic Diseases in China: A Delphi Method

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Purpose: With the increasing aging of the population and the increasing incidence of chronic diseases in China, home hospice care services can meet the desire of the older adult with chronic diseases to receive care and die at home. In order to ensure the real application of hospice in families, the goal of the study was to construct a home hospice care program for the older adult at the end of life with chronic diseases based on Harmony Nursing Theory (composed of three parts: harmony needs assessment, harmony mechanism establishment and interpersonal interaction).

Methods: Through literature review, a qualitative interview and group discussion, the first draft of a home hospice care program for the older adult at the end of life with chronic diseases based on the harmony nursing theory was developed, which was further revised and finalized by combining the Delphi method of expert correspondence with 19 experts and a pilot study with a home hospice care team.

Results: A total of two rounds of expert correspondence were conducted. In the first round, 21 questionnaires were distributed and 19 were returned, yielding a recovery rate of 90.48%. In the second round, 19 questionnaires were distributed, and 19 questionnaires were collected. The recovery rate was 100%. The authority of the two rounds of expert correspondence was 0.96, and Kendall's coefficient of concordance (W) was 0.268 and 0.310, respectively. After the first round of Delphi expert consultation, 3 items were deleted, and 12 items were revised. In the second round of Delphi expert consultation, two items were revised. The final version of the home hospice program includes 4 first-level items, 20 second-level items, and 59 third-level items.

Conclusion: The home hospice care program based on harmony nursing theory is authoritative and scientific and can provide a reference for the practice of home hospice care for the older adult with chronic diseases.

Keywords: hospice care, older adult, harmony nursing theory, end of life, chronic diseases

Introduction

Chronic diseases are defined as non-communicable diseases with a long duration and slow progression, mainly including chronic respiratory diseases, cardiovascular and cerebrovascular diseases, and other conditions.[1] The World Health Organization reports that chronic diseases account for approximately 41 million deaths annually or 71.0% of all deaths globally.[2] At present, the process of population aging is accelerating dramatically in different regions of the world, and China's population aging process is significantly faster than that of other low- and middle-income countries.[3] According to the seventh national census data in 2021, China's population aged 60 years and over was about 260 million, accounting for 18.7% of the total population, and the proportion of the population had risen by 5.44 percentage points compared with that in 2010.[4] Increasing age is the main risk factor for the increased morbidity and mortality of most chronic diseases, and older adults are now a high-prevalence population for chronic diseases.[5] As China's population ages and the

Received: 9 July 2024
Accepted: 18 October 2024
Published: 29 October 2024

incidence of chronic diseases rises, it has become a crucial trend to pay attention to the end-of-life needs of older chronic disease groups.

Since 2017, China has referred to end-of-life and palliative care as hospice care.[6] Hospice care got a late start in mainland China, with China's first hospice center established at Tianjin Medical University in 1988. However, the Global Quality of Death Index (which measures the quality of hospice care) published by the Economist Intelligence Unit in 2015 ranked our citizens in the bottom 9.[7] In 2017, the National Health and Family Planning Commission formally released the "Basic Standards and Management Criteria for Hospice Centers (for Trial Implementation)" and the "Guidelines for Hospice Practice (for Trial Implementation)", which proposed a new direction for hospice care in China In terms of clinical practice,[8] 30 hospice centers have been established in China. In terms of clinical practice, 30 provinces, municipalities and autonomous regions, with the exception of Tibet, have created hospice service organizations according to local conditions, and there are now about 100 hospice organizations in China, with several thousand people engaged in this work. Hospice care is implemented in a multidisciplinary cooperation model, which is centered on dying patients or dying patients and their families, and provides comprehensive care according to the needs, values, beliefs and cultures of patients and their family caregivers.[9] Hospice care service is divided by location into inpatient hospice (hospitals, nursing homes, hospices, and care homes), community hospice, and home hospice. Influenced by the traditional Chinese concept of "falling leaves returning to the root" and "filial piety", as well as the physical and emotional comfort, security and sense of belonging brought by "home", most older adult patients preferred to die at home, Cai's study found.[10] As one of the main service models of hospice care, home hospice care is considered by the public to be the most suitable care model for terminally ill patients. The development of home hospice care services not only meets the wishes of older adult at the end of life with chronic diseases to be cared for until death at home and reduces the care pressure on their families, but also effectively saves medical expenses and optimizes the allocation of medical resources.[11,12]

Tailoring hospice care to the home, Western scholars have constructed comprehensive home hospice care service content, including physical care (symptom management and aide services), psychological and spiritual care, companionship (volunteer services), counseling and guidance (making funeral plans and discussing advance directives).[13–15] Brumley also provides a range of medical and social support services for terminally ill patients at home.[16] UK Hospice Care is aligned to both health and social care, and in some areas, social care services or community care services provided by the National Health System (NHS) will also provide bathing, laundry, dressing and other living services for the dying older adult at home. Meanwhile, in the home environment, where daily care is often provided by relatives rather than medical staff, the hospice team will also provide guidance to the family caregiver, or even provide respite care in lieu of the family caregiver when the family caregiver needs to take a break.[17] The gradual shift in home hospice care interventions from patient-centered to patient-caregiver dyadic interventions is consistent with the World Health Organization's advocacy for building targeted, high-quality "patient-and family-centered" care programs.[18]

The development of hospice care in mainland China has been relatively slow, Chinese scholars, service planners and deliverers have mainly focused on a certain aspect of home hospice care services and have not yet formed a systematic and standardized home hospice care program. A study of patients' symptoms showed that home hospice care can effectively alleviate the physical symptoms of older adult patients with advanced cancer, which is of positive significance to improve the quality of life of patients,[19] but the study only focused on the management of a singleSuch as pain and vomiting), which is not yet able to meet the effective control of the unpredictable and multiple symptoms of the older adult patients with terminal chronic diseases. Cui Guiqin attempted to use individualized psychological interventions to provide psychological guidance to terminal older adult cancer patients, and the results of the study showed that it could effectively alleviate patients' negative emotions and improve their quality of life.[20] However, in China, the research on this psychological support is still in the exploratory stage and the research is relatively dearth. In recent years, Chinese scholars have gradually realized that a comprehensive home hospice care program also includes family caregivers, but the research on caregivers is limited, focusing mostly on grief counseling and funeral care after the death of the dying older adult,[21] and lacking the implementation of the responsibility of caring for the daily life of the dying older adult before their death. Therefore, in the face of China's growing population of older adults with chronic diseases at the end of

life and family caregivers, hospice care teams are in urgent need of a scientific, standardized, and comprehensive home hospice program to systematically guide their work at home.

Because of the cultural differences in religion, ideology, culture, and concept of death western research cannot give full guidance to Chinese hospice providers.[22] The development of hospice care in China needs to be guided by nursing theories rooted in traditional Oriental culture. Chinese scholar Li Zheng developed the Harmony Nursing Theory, utilizing Taoism and Confucianism as the system's pillars, and integrated Rogers' "holistic human science theory" to create a theory that incorporates the traditional cultural heritage of the Orient.[23] The theory consists of three parts: assessment of harmony needs, the establishment of a harmony mechanism and interpersonal interaction, that is, identify harmony needs through systematic assessment of the individual internal and external environment, and formulate final plans for health problems by relying on harmony mechanism, while achieving the maximum possible harmony through interpersonal interaction such as cultural infection and family participation.[23] Moreover, the theory emphasizes the idea of overall harmony, which is very much in line with the principles and concepts of hospice care, pointing out that a harmonious individual (person) achieves unity in four dimensions physical balance, psychological comfort and satisfaction, social acceptance, and spiritual conformity to nature. This theory has been applied to hospice situational analysis and nursing decision-making,[24,25] and is the most appropriate theoretical support for the framework of China's home hospice care program. Therefore, this study aims to construct a theoretically grounded hospice care program in China for the older adult illnesses nearing the end of their lives as well as the family caregivers.

Materials and Methods

Phase I: Establishment of the Research Team

The research team was composed of 13 people, including 1 team leader (director of nursing), 2 secretaries (specialist hospice care nurse), 1 geriatric nurse (supervisor nurse), 3 geriatric doctors (associate chief physician), 2 community nurses (supervisor nurse), 2 nursing teachers (professor), and 2 research assistants (master of nursing). Team members participated in the whole process of literature retrieval, formulating interview questions and expert letter inquiry questionnaires, and integrating and extracting the items at all levels of the program.

Phase II: Initial Establishment of Program Items for Home Hospice Care

Firstly, a literature review was conducted using English search terms such as "hospice care", "palliative care", "end-of-life care", "home care services", "in-home", "home-based" in PubMed, Web of Science, CINAHL, and Scopus was searched in four English databases; the Chinese search terms including "hospice care", "palliative care", "home care" and "discharge care" were used to retrieve the literature from four Chinese databases: Sino-Med, CNKI, Wanfang and Weipu. The purpose was to identify studies on specific interventions for home-based hospice care services. The time limit for searching the database was from the establishment of the database to August 2023. The initial search of the database yielded a total of 567 documents in English and Chinese, 524 documents after removing duplicates, and 519 documents unrelated to the topic, resulting in the inclusion of 5 documents. The first draft of the home hospice care program for older adults at the end of life with chronic diseases was constructed using the Harmony Nursing Theory as a theoretical guide, including four first-level items of physical harmony, psychological harmony, social interpersonal harmony, and spiritual harmony, and 15 second-level items of home environment management, diet management, and oral management, as well as 45 third-level items centered on the 15 second-level items.

Secondly, qualitative interviews were conducted from September to November 2023. The purposive sampling method was used to recruit end-stage dying older adults with chronic diseases and their family caregivers who received home hospice services in Jinzhou City, Liaoning Province, China. Inclusion criteria for the elderly at the end of life1) The older adults were ≥65 years old; (2) Older adult patients with malignant tumors diagnosed by histopathology and staging in stage IV or clinical diagnosis of 1 or more organs with severely impaired function into irreversible end-stage chronic non-tumor disease (expected survival ≤ 6 months); (3) Choosing to die at home (hospice care) ≥ 1 week. Family caregiver inclusion criteria1) Caregivers aged ≥18 years old, able to provide information about the older adult's condition and participate in medical decisions; (2) The caregivers were members of the immediate family, such as parents, spouses,

kids, and siblings; (3) Caregiving time ≥ 50H per week or three months and more. All interviewees signed informed consent and participated in the interview voluntarily. Interviews with dying seniors were organized around the following questions1) What are your fears and concerns at the end of your life? (2) Have you encountered any difficulties since your illness? (3) What do you feel is most important in life's journey? (4) What kind of hospice care and support would you like from your healthcare provider? (5) How do you feel about the current hardware facilities and services inherent in providing home hospice services in your community? Are you satisfied? (6) What other services do you feel the Home Hospice team needs to provide to meet your needs? Interviews with family caregivers were organized around the following questions: (1) What are the difficulties, stresses, and concerns you encounter in caring for your elderly patients? (2) How has an elderly patient's illness affected you? What are your feelings and experiences in caring for your patients? (3) What kind of hospice care and support would you like from your healthcare provider? (4) How do you feel about the current hardware facilities and services inherent in providing home hospice services in your community? Are you satisfied? (5) What other services do you feel the Home Hospice team needs to provide to meet the needs of older patients and families? The Colaizzi 7-step analysis was used to organize the interview data and to determine the appropriate number of interviews using the principle of "saturation"ie, the data were considered saturated when no new topics emerged.

A total of 8 older adults (5 males, 3 females, aged 68–86 years) and 8 caregivers (3 males, 5 females, aged 32–65 years) were interviewed Through the data analysis, five themes were distilled in terms of home hospice care needs, including the need for symptom physical symptoms, psychological symptoms), social support family support, self-care awareness), spiritual Care respect for religious belief, caregiving role conflict), death education accept death peacefully, fulfill one's wish), information disease-related information, caregiving knowledge). Based on the results of the interviews, "pain Management and other symptom management" was added to the dimension of "physical harmony", "negative emotion assessment" was added to the dimension of "mental harmony", "death education" was added to the dimension of "social interpersonal harmony", and "grief counseling" was added to the dimension of "spiritual harmony".

Finally, with reference to the Hospice Practice Guidelines issued by the China Healthcare Commission,[8] the research team integrated the main items formed from the above literature review and a qualitative interview through group meetings and eliminated duplicated items. At the same time, the items were categorized according to the framework of the four dimensions of physical, psychological, social-interpersonal, and spiritual harmony nursing theory (First-level items), and the items of the home hospice care program were initially constructed, including 4 first-level items, 20 second-level items and 62 third-level items.

Phase III: Refinement of Program Items for Home Hospice Care

Home hospice care items were refined through Delphi expert correspondence and pilot studies. The Delphi method is a structured approach to reaching a consensus on a topic through a series of questionnaires and expert assessments.[26] Reasonable selection of experts is the key to the Delphi method, and the selected experts should be representative and authoritative. It is also necessary to consider the experts' areas of specialization and geographic regions. The number of experts is generally.15−30[27] According to the actual situation and resources, 19 experts were selected for consultation from January to March 2024. Criteria for the experts participating in this study1) bachelor's degree or above; (2) those with associate senior title or above; (3) more than 10 years of experience in the fields of hospice, community nursing, community medicine, clinical medicine, and nursing education; and (4) willing to take part in the study and the capacity to promptly complete the two rounds of correspondence questionnaires.

The Delphi questionnaire was formed through a literature review and consisted of three parts. (1) Letter to experts: Introducing the research background and purpose, so that experts understand the research content of this topic. (2) The questionnaire on the content of the care program: the questionnaire on the content of the care program contains the name of each item, using a five-point Likert-type scale (from 5= extremely important to 1=unimportant). Experts are invited to score the importance of each item, and at the same time, experts can modify, add or delete items in the expert opinion column and make personal suggestions and comments. (3) Basic information questionnaire for experts: including general information questionnaire for experts, familiarity self-rating scale and judgment basis.

This study distributed electronic correspondence questionnaires by e-mail and WeChat, which were collected within two weeks of questionnaire distribution; if the questionnaire was not returned on time, the research team members reminded the experts. The research team members statistically analyzed the index scores of the first round of questionnaires and deleted the index items with mean value <3.50 and coefficient of variation >0.25 according to the importance assignment. Experts' opinions and suggestions were collected, carefully analyzed, and research group discussions were conducted to determine the content that needed to be modified, added and deleted in the index items to form the second round of questionnaire. In the second round, the questionnaires were distributed in the same way and collected within two weeks until the experts' opinions tended to reach a consensus.

Next, we conducted a small singular pilot test on the core team of home hospice care (5 physicians, 2 nurses, 1 medical social worker, 3 university teachers, and 5 volunteers) in the community service center of Linghe District, Jinzhou City, Liaoning Province, to test the language of the home hospice care program. During this process, all the item statements were clearly expressed and semantically complete without modification, and finally established the home hospice care program for older adults at the end of life with chronic diseases. The flow chart for this study is shown in Figure 1.

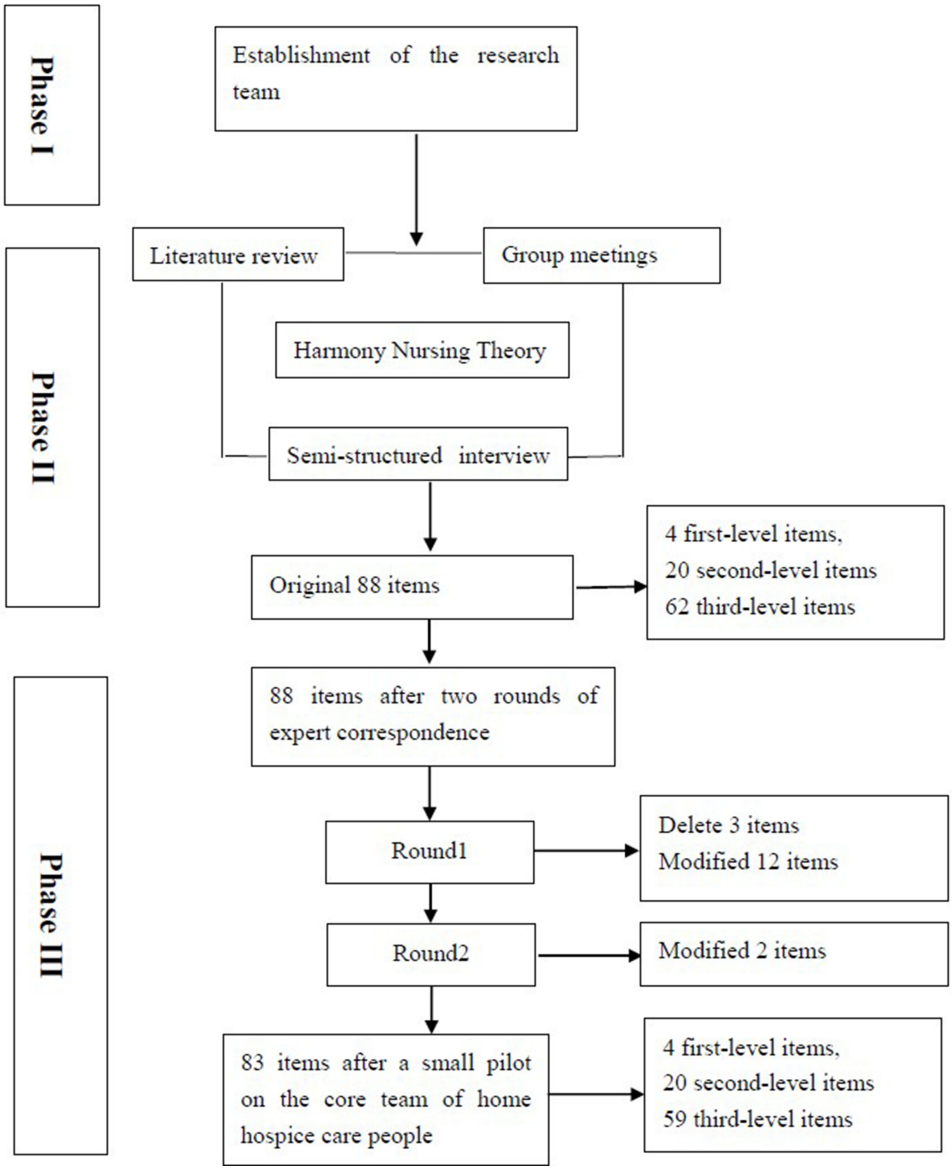

Figure 1 Flowchart of program construction for home hospice care.

Statistical Analysis

The statistical program SPSS 25.0 was utilized to process and analyze the data. Frequencies and percentages were used to describe the experts' general demographic data, including age, education, title, years of working experience, serving as a tutor, and field of work. The degree of expert positivity was measured by the rate of questionnaire recovery and the rate of expert opinions presented. The expert authority coefficient (Cr) measures the degree of authority of experts on the evaluation of items, which is determined by two factors, namely, the degree of familiarity (Cs) and the basis of judgment (Ca). The expert authority coefficient (Cr) was the arithmetic mean of the two, and Cr≥0.7 was generally considered a high authority coefficient. The coefficient of variation (CV) and Kendall coefficient (W) were used to measure the coordination degree of expert opinions, and $p < 0.05$ was considered statistically significant. The coefficient of variation indicates the fluctuation of the experts' ratings, and the lower the coefficient of variation, the higher the degree of coordination among the experts. Kendall's coefficient indicates the consistency of all experts on each item, with a range of 0–1. The larger the value of W, the more consistent the degree of coordination of expert opinions.[28,29]

Ethical Consideration

This study was provided by the School of Nursing, Jinzhou Medical University (NO: JZMULL2023059) and was conducted according to the tenets of the Declaration of Helsinki. Confirms that all experiments were performed in accordance with relevant named guidelines and regulations. Each recruited participant signed a written informed consent before participation.

Results

Demographic Description of Experts

In the first and second rounds of this study, a total of 19 experts were consulted from Beijing (n=5), Shanghai (n=2), Zhejiang (n=3), Jiangsu (n=3) and Liaoning (n=6) provinces, including chief physicians and head nurses of 7 hospitals and professors and associate professors of 6 colleges and universities. In terms of age, there were 12 experts aged 40–50 years, accounting for 63.16%, 5 experts aged 51–60 years and over, accounting for 26.32%, and 2 experts aged 60 years and over, accounting for 10.53%. In terms of work field, the experts were occupied with clinical geriatrics (5.26%), geriatric nursing education (15.79%), community chronic care (21.0%), clinical oncology care (21.0%), older adult hospice care (31.5%), and community chronic disease medicine (5.26%). Table 1 displays the detailed demographic data for specialists.

Content Evaluation of Home Hospice Care Program for Older Adults at the End of Life with Chronic Diseases

Round 1

After the first round of Delphi Expert Correspondence, the mean importance of the first-level items ranged from 4.95–5.00 and the coefficient of variation from 0–0.05; the mean importance of the second-level items ranged from 4.11–4.90 and the coefficient of variation from 0.06–0.20; and the mean importance of the third-level items ranged from 4–5 and the coefficient of variation from 0.00–0.19. It can be seen that all items met the retention criteria for importance and coefficient of variation.

Next, based on the advice of the experts, the second-level items' expression was modified. First, the experts thought that 1.7 "Sports management" was not properly expressed because terminal patients are unlikely to exercise and suggested that it be modified to "Activity and rest management". Secondly, the experts proposed that the content of the three-level title under 3.2 "Building social support system" was mostly related to "community", and it was suggested to modify the index to "Building a community support system". Finally, the experts said that the expression 3.4 "Family education" needed to be made clearer, and that it was necessary to specify which aspects of family education should be included, so the research team revised the item to "Family communication and health management".

In the third-level items, experts also put forward corresponding modifications, For example, "duration of pain" is added in 1.9.1 "The cause, degree, time, location and nature of pain were evaluated, and individualized analgesic plan

Table 1 Demographic Characteristics of Experts (n = 19)

Characteristics	N	Percentage (%)
Age(years)		
40–50	12	63.16
51–60	5	26.32
>60	2	10.53
Level of education		
Bachelor	8	42.1
Master	4	21.05
PhD	7	36.8
Title		
Deputy senior title	10	52.6
Senior title	9	47.37
Year of working (year)		
10—20	5	26.32
21—30	5	26.32
31–40	8	42.11
>40	1	5.2
Supervisor		
No	5	26.3
Master Supervisor	9	47.3
Doctoral supervisor	5	26.3
Professional field		
Clinical geriatrics	1	5.26
Geriatric nursing education	3	15.79
Community chronic care	4	21.0
Clinical oncology care	4	21.0
Elderly hospice care	6	31.5
Community chronic disease medicine	1	5.26

was formulated"; adding "caregiving capacity" in 3.1.2 "Assess the caregiver burden and stress of family members"; 4.4.2 "Respect the customs of the deceased and their families, assist in body care and dressing" can be divided into two parts according to the expert's advice: respecting the customs and preparing the corpse, and the dressing package has been included in the corpse cooking. In addition, the experts recommended deleting three of the items that contained duplicative content. After the first round of consultation, 3 items were deleted and 12 items were modified. Four first-level items, 20 second-level items and 59 third-level items were identified. Table 2 displays the scores as well as modifications made to the items in the first round.

Round 2

The experts did not mention the addition and deletion of any items in the second round of expert consultation. The experts agreed on the content and the scores met the consensus criteria. The mean significance of the first-level items ranged from 4.95 to 5.00, with coefficients of variation between 0 and 0.05; the mean significance of the second-level items ranged from 4.00 to 4.95, with coefficients of variation between 0.05 and 0.20; and the mean significance of the third-level items ranged from 4.00 to 5.00, with coefficients of variation between 0.00 and 0.20. Five experts proposed modifications to the specific content under the three-level items. In 4.3.2 "Targeted grief counseling", the example is only for bereavement, and grief counseling before bereavement should be supplemented. One expert believes that 4.1.2 "Assessment of end-of-life wishes and pre-medical care plans for the elderly" is inappropriate and the 'assessment' should be changed to "understanding or mastering". After the second round of consultation, the research team revised the two items, and finally formed a program for home hospice care for older adults at the end of life with chronic diseases, including 4 first-level items, 20 second-level items, and 59 third-level items (see Table 3).

Table 2 Home Hospice Care Program for the Elderly at the End of Life with Chronic Diseases After Expert Consultation. (First-Round)

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
1. Physical harmony			5.00	0.00	0.00		
	1.1 home environment management		4.53	0.77	0.17		
		1.1.1 Assessment of the elderly's environmental comfort needs and living habits	4.74	0.45	0.10		
		1.1.2 Guide home environment safety (eg non-slip floor, additional handrails)	4.11	0.81	0.20		
		1.1.3 Guide the home environment layout (add green plants, murals and other decorations), follow the principles of quiet, clean and bright, indoor ventilation, and appropriate temperature and humidity	4.26	0.73	0.17		
	1.2 Diet Management		4.89	0.32	0.06		
		1.2.1 Evaluate the eating habits, digestive function, appetite and nutritional status of the elderly, and formulate nutritional formulas	4.47	0.70	0.16		
		1.2.2 Guide food types, food combinations, eating time and way	4.79	0.42	0.09		
		1.2.3 Guide the observation of abnormal conditions after eating (such as nausea, vomiting, eating difficulties) and treatment methods	4.58	0.77	0.17		
	1.3 Oral Management		4.16	0.83	0.20		
		1.3.1 Evaluate oral condition, odor and tooth loosening	4.47	0.77	0.17		
		1.3.2 Guide the correct brushing and gargling method and time	4.63	0.60	0.13		
	1.4 Skin Management		4.89	0.32	0.06		
		1.4.1 Assess skin conditions and risk factors for pressure ulcers	4.79	0.42	0.09		
		1.4.2 Guide to scrub, change clothes and turn over frequently, keep the bed flat, clean and dry, and keep the skin clean and dry	4.89	0.32	0.06		
	1.5 Sleep disorder management		4.84	0.37	0.08		
		1.5.1 Assessing the causes of sleep disorders	4.89	0.32	0.06		

(*Continued*)

Table 2 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
		1.5.2 Guidance on comfortable sleeping positions and measures to promote sleep (such as increased daytime activity, meditation and relaxation)	4.95	0.23	0.05		
	1.6 Management of abnormal excretion		4.89	0.32	0.06		
		1.6.1 Assess the causes of abnormal bowel movements (constipation, diarrhea) and abnormal urination (retention, incontinence)	4.95	0.23	0.05		
		1.6.2 Guidance on abnormal bowel movements: methods of inducing urination (such as listening to water sound, hot compress, etc.), defecation (massage abdomen) and anal sphincter and pelvic floor muscle training	4.74	0.45	0.10		
		1.6.3 Prevention of incontinence dermatitis: guide the proper use of protective measures (such as diapers) to keep the perineum and perianal skin clean and dry	4.84	0.37	0.08		
	1.7 Sports management		4.11	0.81	0.20	Modify	Activity and rest management
		1.7.1 Assess the self-care ability and activity ability of the elderly	4.84	0.37	0.08		
		1.7.2 Guide activities or training methods, time, content	4.68	0.48	0.10		
	1.8 Catheter management		4.89	0.32	0.06		
		1.8.1 Evaluate, properly fix, periodically check and replace pipes	4.84	0.37	0.08		
		1.8.2 Assist and guide family members in routine maintenance of pipes	4.84	0.37	0.08		
	1.9 Pain Management		4.89	0.32	0.06		
		1.9.1 The cause, degree, time, location and nature of pain were evaluated, and individualized analgesic plan was formulated	4.95	0.23	0.05	Modify	Evaluate the cause, degree, onset, duration, location and nature of pain, and develop an individualized analgesic program
		1.9.2 The effect of analgesic drugs, adverse reactions and complications were observed according to the three-step treatment guidelines	4.89	0.32	0.06	Modify	According to the three-step treatment guideline, the analgesic effect was observed, the adverse reactions were preliminarily treated, and complications were prevented

(*Continued*)

Table 2 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
		1.9.3 Instruct and assist family members in the use of non-medicated methods for pain relief (eg, music therapy, distraction, autosuggestion, auricular massage)	4.89	0.32	0.06		
	1.10 Other symptom management		4.89	0.32	0.06		
		1.10.1 Evaluate the cause, degree and characteristics of common end-stage symptoms (such as dyspnea, delirium, edema, etc.)	5.00	0.00	0.00		
		1.10.2 Closely observe signs (vital signs, blood glucose) and consciousness, and develop individualized symptom care measures	4.95	0.23	0.05	Modify	Observe signs (vital signs, blood sugar) and consciousness on time, and formulate individualized symptom care measures
		1.10.3 Personalize symptom administration and instruct patients and family members for post-medication observation	4.95	0.23	0.05		
		1.10.4 Instruct and assist in the use of non-medication-assisted methods (eg respiratory exercise methods, physical cooling methods)	4.84	0.37	0.08		
		1.10.5 Assist and guide family members in emergency treatment of disease changes and unexpected situations (such as bed fall, pressure sores, extubation)	4.95	0.23	0.05	Modify	Assist and guide family members to observe changes in illness, emergency treatment measures for unexpected situations (such as falling bed, pressure sores, extubation, scalds)
2. Psychological harmony			4.95	0.23	0.05		
	2.1 Negative emotion assessment		4.79	0.42	0.09		
		2.1.1 To evaluate the causes, manifestations and extent of negative emotions in the elderly	4.95	0.23	0.05		
		2.1.2 Assess the caregiving feelings and emotional changes of family members	4.89	0.32	0.06		
	2.2 Emotional relief processing		4.84	0.37	0.08		
		2.2.1 Patiently listen to and guide the elderly to pour out and resolve their emotions	4.95	0.23	0.05		

(*Continued*)

Table 2 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
		2.2.2 Use appropriate communication skills (such as behavioral therapy, emotional regimen, psychological suggestion) for psychological counseling	4.89	0.32	0.06		
		2.2.3 Assist and guide family members to relieve their negative emotions during care	4.89	0.32	0.06	Delete (duplicate with 2.2.1)	
		2.2.4 Guide the family's daily activities and interactions (such as having dinner with friends and relatives, accompanying them to reminisce)	4.79	0.54	0.11		
3. Social interpersonal harmony			4.95	0.23	0.05		
	3.1 Family support assessment		4.95	0.23	0.05		
		3.1.1 Assess pedigree map, family relationships, family structure	4.84	0.37	0.08		
		3.1.2 Assess the caregiver burden and stress of family members	4.84	0.37	0.08	Modify	To assess the caregiving capacity, caregiving burden and stress of family members
		3.1.3 Assess the family's knowledge of disease and disease information (such as disease progression and treatment decisions)	4.84	0.37	0.08		
	3.2 Build social support systems		4.89	0.32	0.06	Modify	Build a community support system
		3.2.1 Establish mutual aid groups for the elderly and their families, exchange feelings and experiences, and participate in community or social activities together	4.26	0.87	0.20		
		3.2.2 Provision of diverse family caregiver support (eg community breathing services, non-professional assisted care)	4.74	0.45	0.10		
		3.2.3 The community provides assistive tools (such as wheelchairs, crutches, etc.), the use of equipment and suggestions	4.84	0.37	0.08	Delete	

(*Continued*)

Table 2 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
		3.2.4 Community consultation (such as legal consultation, referral consultation, etc.) and voluntary services (such as free management, free photography, etc.)	4.68	0.48	0.10		
		3.2.5 Community publicity of hospice care knowledge and positive death concepts (such as holding science popularization lectures, making publicity brochures, etc.)	4.26	0.81	0.19		
	3.3 Death education		4.79	0.42	0.09		
		3.3.1 Assessment of death perceptions, attitudes (eg, fear, death avoidance)	4.84	0.37	0.08		
		3.3.2 Inform death knowledge and clinical manifestations of death	4.00	0.75	0.19		
		3.3.3 Targeted death education guidance (such as peace of Mind tea House activities, dignity therapy)	4.26	0.73	0.17		
		3.3.4 Family interactive death education (eg, thank you, apology, say love, say goodbye)	4.84	0.37	0.08	Modify	Assist in interactive family death education (eg, thank you, apologize, say love, say goodbye)
	3.4 Family education		4.16	0.83	0.20	Modify	Family communication and health management
		3.4.1 Inform family members of effective communication methods, skills and precautions with the elderly	4.84	0.50	0.10		
		3.4.2 Inform family members of symptoms monitoring, care skills and precautions	4.79	0.54	0.11	Delete	
		3.4.3 Inform family members of their own health management methods and health information (such as chronic disease management)	4.74	0.56	0.12		
4. Spiritual harmony			4.95	0.23	0.05		
	4.1 End-of-life needs assessment		4.89	0.32	0.06		
		4.1.1 Assess the needs of family culture and belief	4.84	0.37	0.08		
		4.1.2 Assessment of end-of-life wishes and pre-medical care plans for the elderly	4.79	0.42	0.09		

(*Continued*)

Table 2 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV	Notes	The Modified Content
		4.1.3 Evaluate the interpersonal relationship of the elderly (such as resentment, conflict, etc.)	4.63	0.60	0.13		
		4.1.4 Evaluate the life meaning, life value views and needs of the elderly	4.00	0.75	0.19		
	4.2 Spiritual comfort		4.79	0.42	0.09		
		4.2.1 Assist the elderly in establishing and implementing bucket lists (eg property distribution, afterlife arrangements) and living wills (eg organ or body donation)	4.89	0.32	0.06	Modify	Assist the elderly in establishing and implementing bucket lists (eg afterlife arrangements) and living wills (eg organ or body donation)
		4.2.2 Support family religious beliefs correctly (eg prayer, religious group visits)	4.84	0.37	0.08		
		4.2.3 Assist the elderly to review their lives and find the meaning and value of life	4.89	0.32	0.06		
		4.2.4 Rebuild interpersonal relationships: resolve past grievances and conflicts	4.11	0.81	0.20		
	4.3 Grief counseling		4.74	0.56	0.12		
		4.3.1 Dynamic assessment of family grief risk	4.84	0.37	0.08		
		4.3.2 Targeted grief counseling (such as holding mourning ceremonies to express sad feelings)	4.21	0.71	0.17		
		4.3.3 Regular follow-up visits, giving play to the auxiliary role of volunteers and social workers	4.79	0.54	0.11		
	4.4 Bereavement support		4.84	0.37	0.08		
		4.4.1 Preparation before death (such as preparing the clothes for the portrait, contacting the funeral home)	4.79	0.42	0.09	Modify	Assist family members in preparing for the death of the elderly (such as preparing the clothes for the portrait, contacting the funeral home)
		4.4.2 Respect the customs of the deceased and their families, assist in body care and dressing	4.79	0.42	0.09	Modify	Respect the customs of the deceased and their families and assist in the care of the body
		4.4.3 Arrange the farewell and transportation of the body	4.79	0.42	0.09		

Abbreviations: SD, Standard Deviation; CV, Coefficient of variation.

Table 3 Home Hospice Care Program for the Elderly at the End of Life with Chronic Diseases After Expert Consultation. (Second-Round)

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV
1. Physical harmony			5.00	0.00	0.00
	1.1 home environment management		4.68	0.48	0.10
		1.1.1 Assessment of the elderly's environmental comfort needs and living habits	4.74	0.45	0.10
		1.1.2 Guide home environment safety (eg non-slip floor, additional handrails)	4.16	0.76	0.18
		1.1.3 Guide the home environment layout (add green plants, murals and other decorations), follow the principles of quiet, clean and bright, indoor ventilation, and appropriate temperature and humidity	4.26	0.73	0.17
	1.2 Diet Management		4.89	0.32	0.06
		1.2.1 Evaluate the eating habits, digestive function, appetite and nutritional status of the elderly, and formulate nutritional formulas	4.47	0.70	0.16
		1.2.2 Guide food types, food combinations, eating time and way	4.79	0.42	0.09
		1.2.3 Guide the observation of abnormal conditions after eating (such as nausea, vomiting, eating difficulties) and treatment methods	4.79	0.42	0.09
	1.3 Oral Management		4.32	0.67	0.16
		1.3.1 Evaluate oral condition, odor and tooth loosening	4.47	0.61	0.14
		1.3.2 Guide the correct brushing and gargling method and time	4.68	0.58	0.12
	1.4 Skin Management		4.95	0.23	0.05
		1.4.1 Assess skin conditions and risk factors for pressure ulcers	4.89	0.32	0.06
		1.4.2 Guide to scrub, change clothes and turn over frequently, keep the bed flat, clean and dry, and keep the skin clean and dry	4.89	0.32	0.06
	1.5 Sleep disorder management		4.95	0.23	0.055
		1.5.1 Assessing the causes of sleep disorders	4.89	0.32	0.06
		1.5.2 Guidance on comfortable sleeping positions and measures to promote sleep (such as increased daytime activity, meditation and relaxation)	5.00	0.00	0.00
	1.6 Management of abnormal excretion		4.79	0.42	0.09
		1.6.1 Assess the causes of abnormal bowel movements (constipation, diarrhea) and abnormal urination (retention, incontinence)	4.84	0.37	0.08
		1.6.2 Guidance on abnormal bowel movements: methods of inducing urination (such as listening to water sound, hot compress, etc.), defecation (massage abdomen) and anal sphincter and pelvic floor muscle training	4.89	0.32	0.06
		1.6.3 Prevention of incontinence dermatitis: guide the proper use of protective measures (such as diapers) to keep the perineum and perianal skin clean and dry	4.84	0.37	0.08
	1.7 Activity and rest management		4.16	0.76	0.18
		1.7.1 Assess the self-care ability and activity ability of the elderly	4.89	0.32	0.06
		1.7.2 Guide activities or training methods, time, content	4.74	0.45	0.10
	1.8 Catheter management		4.89	0.32	0.06
		1.8.1 Evaluate, properly fix, periodically check and replace pipes	4.84	0.37	0.08
		1.8.2 Assist and guide family members in routine maintenance of pipes	4.89	0.32	0.06
	1.9 Pain Management		4.95	0.23	0.05

(*Continued*)

Table 3 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV
		1.9.1 Evaluate the cause, degree, onset, duration, location and nature of pain, and develop an individualized analgesic program	4.95	0.23	0.05
		1.9.2 According to the three-step treatment guideline, the analgesic effect was observed, the adverse reactions were preliminarily treated, and complications were prevented	4.79	0.42	0.09
		1.9.3 Instruct and assist family members in the use of non-medicated methods for pain relief (eg, music therapy, distraction, autosuggestion, auricular massage)	4.95	0.23	0.05
	1.10 Other symptom management		4.74	0.56	0.12
		1.10.1 Evaluate the cause, degree and characteristics of common end-stage symptoms (such as dyspnea, delirium, edema, etc.)	5.00	0.00	0.00
		1.10.2 Observe signs (vital signs, blood sugar) and consciousness on time, and formulate individualized symptom care measures	4.95	0.23	0.05
		1.10.3 Personalize symptom administration and instruct patients and family members for post-medication observation	4.95	0.23	0.05
		1.10.4 Instruct and assist in the use of non-medication-assisted methods (eg respiratory exercise methods, physical cooling methods)	4.84	0.37	0.08
		1.10.5 Assist and guide family members to observe changes in illness, emergency treatment measures for unexpected situations (such as falling bed, pressure sores, extubation, scalds)	4.95	0.23	0.05
2. Psychological harmony			4.95	0.23	0.05
	2.1 Negative emotion assessment		4.79	0.42	0.09
		2.1.1 To evaluate the causes, manifestations and extent of negative emotions in the elderly	4.95	0.23	0.05
		2.1.2 Assess the caregiving feelings and emotional changes of family members	5.00	0.00	0.00
	2.2 Emotional relief processing		4.84	0.37	0.08
		2.2.1 Patiently listen to and guide the elderly to pour out and resolve their emotions	4.95	0.23	0.05
		2.2.2 Use appropriate communication skills (such as behavioral therapy, emotional regimen, psychological suggestion) for psychological counseling	4.89	0.32	0.06
		2.2.3 Guide the family's daily activities and interactions (such as having dinner with friends and relatives, accompanying them to reminisce)	4.79	0.54	0.11
3. Social interpersonal harmony			4.95	0.23	0.05
	3.1 Family support assessment		4.95	0.23	0.05
		3.1.1 Assess pedigree map, family relationships, family structure	4.84	0.37	0.08
		3.1.2 To assess the caregiving capacity, caregiving burden and stress of family members	4.89	0.32	0.06
		3.1.3 Assess the family's knowledge of disease and disease information (such as disease progression and treatment decisions)	4.89	0.32	0.06
	3.2 Build a community support system		4.89	0.32	0.06
		3.2.1 Establish mutual aid groups for the elderly and their families, exchange feelings and experiences, and participate in community or social activities together	4.37	0.76	0.17
		3.2.2 Provision of diverse family caregiver support (eg community breathing services, non-professional assisted care)	4.74	0.45	0.10

(*Continued*)

Table 3 (Continued).

First-Level Indicators	Second-Level Indicators	Third-Level Indicators	Mean	SD	CV
		3.2.3 Community consultation (such as legal consultation, referral consultation, etc.) and voluntary services (such as free management, free photography, etc.)	4.68	0.48	0.10
		3.2.4 Community publicity of hospice care knowledge and positive death concepts (such as holding science popularization lectures, making publicity brochures, etc.)	4.26	0.81	0.19
	3.3 Death education		4.79	0.42	0.09
		3.3.1 Assessment of death perceptions, attitudes (eg, fear, death avoidance)	4.84	0.37	0.08
		3.3.2 Inform death knowledge and clinical manifestations of death	3.84	0.76	0.20
		3.3.3 Targeted death education guidance (such as peace of Mind tea House activities, dignity therapy)	4.21	0.79	0.19
		3.3.4 Assist in interactive family death education (eg, thank you, apologize, say love, say goodbye)	4.84	0.37	0.08
	3.4 Family communication and health management		4.00	0.82	0.20
		3.4.1 Inform family members of effective communication methods, skills and precautions with the elderly	4.84	0.50	0.10
		3.4.2 Inform family members of their own health management methods and health information (such as chronic disease management)	4.79	0.42	0.09
4. Spiritual harmony			4.95	0.23	0.05
	4.1 End-of-life needs assessment		4.95	0.23	0.05
		4.1.1 Assess the needs of family culture and belief	4.84	0.37	0.08
		4.1.2 Understand or master the end-of-life wishes of the elderly and advance medical care plans	4.79	0.42	0.09
		4.1.3 Evaluate the interpersonal relationship of the elderly (such as resentment, conflict, etc.)	4.37	0.68	0.16
		4.1.4 Evaluate the life meaning, life value views and needs of the elderly	3.89	0.74	0.19
	4.2 Spiritual comfort		4.79	0.42	0.09
		4.2.1 Assist the elderly in establishing and implementing bucket lists (eg afterlife arrangements) and living wills (eg organ or body donation)	4.89	0.32	0.06
		4.2.2 Support family religious beliefs correctly (eg prayer, religious group visits)	4.84	0.37	0.08
		4.2.3 Assist the elderly to review their lives and find the meaning and value of life	4.95	0.23	0.05
		4.2.4 Rebuild interpersonal relationships: resolve past grievances and conflicts	4.00	0.82	0.20
	4.3 Grief counseling		4.79	0.42	0.09
		4.3.1 Dynamic assessment of family grief risk	4.84	0.37	0.08
		4.3.2 Targeted grief counseling (eg holding a memorial service, expressing grief, writing a memoir)	4.11	0.74	0.18
		4.3.3 Regular follow-up visits, giving play to the auxiliary role of volunteers and social workers	4.84	0.37	0.08
	4.4 Bereavement support		4.89	0.32	0.06
		4.4.1 Assist family members in preparing for the death of the elderly (such as preparing the clothes for the portrait, contacting the funeral home)	4.68	0.48	0.10
		4.4.2 Respect the customs of the deceased and their families and assist in the care of the body	4.84	0.37	0.08
		4.4.3 Arrange the farewell and transportation of the body	4.68	0.48	0.10

Abbreviations: SD, Standard Deviation; CV, Coefficient of variation.

Table 4 Degree of Coordination of Correspondence with Experts

Consultation Round	Number of Indicators	Kendall's W	X^2 value	P
Round1	86	0.268	432.25	<0.001
Round2	83	0.310	483.70	<0.001

Authority of Experts and Coordination of Expert Opinions

In the first round of expert consultation of this study, a total of 21 questionnaires were sent out, and 19 valid questionnaires were returned, with an effective recovery rate of 90.48%. 15 experts gave suggestions, accounting for 78.95%. In the second round of expert consultation, a total of 19 questionnaires were sent out and 19 valid questionnaires were returned, with an effective recovery rate of 100%. Five experts gave suggestions, accounting for 26.32%. In general, the effective response rate of experts was more than 90% (> 85%), and the authority coefficient was 0.96 (≥0.7), indicating the authority of experts and the credibility of the results of the Delphi method. In addition, Kendall's W values of the importance assignment of the two rounds of items were 0.268 and 0.310, respectively, and the difference was statistically significant ($P < 0.001$), indicating that the two rounds of experts had good coordination. See Table 4 for details.

Discussion

The development process of the home hospice care program was made rigorous by utilizing a variety of research methods. In this study, qualitative interviews were conducted to understand the difficulties and needs of both the older adults at the end of life with chronic diseases and family caregivers in coping with advanced illness, which led to the identification of critical issues for the construction of a home hospice care program. Through literature review, a comprehensive home hospice care program based on the needs of the older adult at the end of life with chronic diseases and family caregivers was initially constructed.

The Delphi expert correspondence method was used in the process of home hospice care program refinement. The success or failure of Delphi expert consultation is largely dependent on the choice of experts. With a good representation of experts, the experts in this study included university professors, clinicians, and nursing specialists from five different provinces and regions (developed or developing cities in China). Experts with master's degree or above accounted for 57.89%, and the proportion of associate senior title or above accounted for 100%, indicating that the correspondence experts have rich professional knowledge in their respective fields; moreover, the experts' authority coefficient is high, and their authority is reliable, so they can provide reasonable guidance and suggestions for this care program. The survey's two rounds' Kendall degrees of coordination (W) were 0.256 and 0.302, respectively, further demonstrating how the expert opinions had become more unified in the second round following the first round's adjustment. As a result, the home hospice care program constructed in this study has comprehensive and dependable content, which compensates for the limitations of focusing only on a symptom or specific method. It also may lessen the caregiver's caregiving burden and strengthen the dying older adult's capacity for self-management. Additionally, the operational and clinical appropriateness of the items is supported by a small pilot test grounded in the clinical experience of the home hospice care team.

The Harmony Nursing Theory of this study is in line with China's traditional cultural background and clinical nursing practice, the essence of which is to achieve the harmonization of norms and practices based on the needs of home hospice older adult patients and caregivers, and to achieve the goal of "comfort and hospice". The program constructed in this study consists of four main components, which are physical harmony, psychological harmony, social support harmony and spiritual harmony. The physical harmony component mainly includes basic daily care and symptom control. When older adults are in the terminal stage, they may require full or partial assistance to carry out daily activities because they are inconvenient or unable to do so on their own, such as brushing their teeth or washing their hair. Homecare can provide caregivers with the skills and knowledge they need to reduce their caregiving burden. The importance of home care skills for both patients and caregivers has been well documented in the study by Wang Qing et al.[30] Symptom

management focuses on informing the dying older adult and family caregivers about the manifestations of common symptoms, their assessment, methods of control, as well as the proper use of medications and precautions. Consistent with Alex Melissinos's findings, the majority of older cancer patients have persistent symptoms like pain and fatigue,[31] and the diversity of symptom types not only affects the disease and prognosis of older adult patients but also places a heavy burden on caregivers.[32] Therefore, symptom management has become a significant problem that needs to be solved urgently for the dying older adult and family caregivers. Furthermore, this study is similar to the self-management program for lung cancer patients constructed by Zhao Fang scholars,[33] in which symptom control is the main component of the program. Meanwhile, previous studies have demonstrated that certain non-pharmacological methods, such as respiratory training and exercise training,[34,35] can effectively alleviate symptoms of dyspnea, cough, fatigue, pain, sleep disorders and so on, which are of great practical significance for older adult patients. This study draws on relevant literature to extract effective non-pharmacological interventions for various symptoms, combining pharmacological and non-pharmacological methods for effective symptom management, and the content of the program is highly applicable. In addition, the program provides a brief introduction and guidance on the critical situations that may occur at home for the dying older adult, such as falling out of bed, to try to avoid the adverse consequences of the excessive anxiety of the dying older adult and the caregivers, improve the care ability of the caregivers and to reduce the risk of adverse events.

The psychological harmony component aids in the early recognition of negative emotions like anxiety and depression by the older adult who are dying and their caregivers, as well as providing them with effective coping measures. As stressors, illnesses like cancer consume the patience, energy and emotion of the older adult dying patients and their caregivers to the greatest extent, which is consistent with previous studies.[31,36] The dying older adult and caregivers bear a great psychological burden at every stage. In addition, due to the lack of communication with family members because of the fear of complaining too much and the influence of China's "forbearance" unwilling or afraid to seek prompt medical attention or treatment, choosing to endure pain),[37] the older adult patients adopt an avoidance approach to deal with stress, resulting in the persistence of negative emotions such as depression, anxiety, fear and despair, which not only relates to the development of the disease but also affects the caregivers' emotional state. Psychiatric support for the dying and their caregivers is a crucial part of hospice care services, in line with Liu Ying's construction of the content of home hospice care services for advanced cancer patients.[38] Existing studies have shown that negative emotions can be effectively relieved through relaxation therapies such as music therapy and aromatherapy.[39,40] Therefore, in the "Emotional relief processing" section of this study, we mainly introduced negative emotion relief methods to the dying older adult and their caregivers and encouraged them to actively use the family support network.

The content of social support and spiritual harmony includes the Chinese characteristics of home hospice care service measures, namely, the promotion of home hospice-related knowledge and death education to the dying older adult and their families, which has not been mentioned in the relevant foreign reports. This may be related to the fact that many patients in China start hospice care with a lack of understanding of their condition, and patients understand hospice care and accept the fact of the terminal stage often after entering hospice care services. The death education component aims to convey an accurate perspective of life and death to the dying older adult and their caregivers. Previous studies have found that the harm done to older adult patients by long-term radiotherapy and other treatments has caused them to lose their self-worth and develop emotions such as self-denial, and that reviewing and evaluating the experience of reorganizing their lives through methods such as life review can awaken the hope of the older adult patient, prompting the older adult patient to accept himself or herself and to accept life.[31,41] Furthermore, as the disease worsens, older adult patients' fear of death may make it impossible for them to view death rationally. The study emphasizes the need to respect patients' and caregivers' beliefs, assist them in establishing accurate perspectives on life and death, enable them to express their love for one another, and fulfill patients' unmet wishes without feeling regretful.[42] Pan et al also pointed out that strengthening death education is an effective measure to enable patients to spend the rest of their lives comfortably and caregivers to face the patient's death openly.[43] The "death education" component of this study combines interventions from previous programs to support older adult patients and caregivers to find meaning in life and gain peace of mind.

The practice of home hospice care programs can face a number of difficulties. First, there is a lack of fee schedules for hospice programs such as symptom assessment and psychosocial support, which greatly limits the development of

hospice care. At the same time, as a multidisciplinary service, hospice care programs do not have a fee schedule for services related to other disciplines, such as social workers, psychological support, and other complementary therapies, which makes it impossible to ensure that quality-of-life services other than medical care are available. Finally, the program involves a number of specialized areas such as symptom control, death education, psychological support, etc., and the professional training of community health care workers needs to be further improved.

In response to the difficulties in implementation, the home hospice care team, with the support of the policy and community health centers, continued to explore a fee system for home hospice care services, performance evaluation management, and guaranteed hospice practitioners' performance not less than the performance of their previous positions. Screening of willing health care workers for training and learning, the establishment of a core team under the guidance of higher-level professionals, and then the continuous improvement and optimization of their own situation.

Limitations

The following are the limitations of this study. First, only older adults at the end of life with chronic diseases and their family caregivers in Jinzhou City, Liaoning Province, were selected for interviews in this study, and the representativeness of the sample is still insufficient. Future studies can collect data from different regions to improve the content of the home hospice care program and make the program more universal and replicable. Second, due to time constraints, this study only constructed a home hospice care program for the older adult at the end of life with chronic diseases in China, and a randomized controlled trial has not yet been conducted to validate the effectiveness of the program. Further trials are needed to evaluate the effectiveness of home hospice care programs using multiple outcome items at the patient, caregiver, and health care delivery system levels.

Conclusion

Based on the connotation of Harmony Nursing Theory and the concept of hospice care service, this study combined with the Delphi method to construct a home hospice care program suitable for the dying older adult with chronic diseases and their family caregivers in China. The home hospice care program constructed in this study not only considers the various needs of the dying older adult with chronic diseases and their caregivers, but also adapts the items of the program to Chinese culture and national conditions. In the future, this research program should be practiced in community medical work with a small sample, and truly applied to the work of home hospice care, to test and improve the program in the actual investigation effect.

The next step could be to evaluate the feasibility of this study to form a program through a randomized controlled trial with practical inclusion of study participants, based on quantitative (implementation, effectiveness and acceptability) and qualitative (unstructured interviews, relevant information such as letters of commendation) indicators of the study participants during their participation in the program at pre-intervention and post-intervention (1 month, 3 months).

Acknowledgment

We are very grateful to the terminally ill seniors and their families who participated in this study.

Funding

This work was funded by the Chinese Association of Gerontology and Geriatrics, Action for Health Promotion in the Elderly (2021-2025), First Action Program Fund (No. CAGG-2021-04-01).

Disclosure

The authors report no conflicts of interest in this work.

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