

# Construction and Adjustment of the Training Program for Hospice Care Nursing Specialists Based on the Delphi Method

Shaoju Xie<sup>1</sup>, Jiquan Zhang<sup>2,\*</sup>, Fan Xu<sup>1</sup>, Qiao Li<sup>1</sup>, Xi Luo<sup>1</sup>, Yaoyao Long<sup>1</sup>, Xiaoli Zhong<sup>2</sup>

<sup>1</sup>Department of Oncology, Deyang People's Hospital, Deyang, China

<sup>2</sup>Department of Nursing, Deyang People's Hospital, Deyang, China

## Email address:

dyzhangjiquan@163.com (Jiquan Zhang)

\*Corresponding author

## To cite this article:

Shaoju Xie, Jiquan Zhang, Fan Xu, Qiao Li, Xi Luo, Yaoyao Long, Xiaoli Zhong. Construction and Adjustment of the Training Program for Hospice Care Nursing Specialists Based on the Delphi Method. *American Journal of Nursing Science*. Vol. 12, No. 1, 2023, pp. 14-20.

doi: 10.11648/j.ajns.20231201.13

Received: January 10, 2023; Accepted: January 31, 2023; Published: February 14, 2023

**Abstract:** *Objectives:* This study aimed to construct a novel training program focused on the cultivation of practical skills, in order to provide a reference for the training of hospice care (HC) nursing specialists in China. *Methods:* This study applied Delphi method to collect and analyze opinions of selected experts from different regions and organizations in China, who have knowledge or practical experience related to HC. *Results:* From October to December 2020, a total of 17 experts from 14 tertiary hospitals and 3 nursing colleges across China participated in the survey. In the first round, out of 17 experts 16 responded, with the expert positive coefficient of 93.8%. For the two rounds of survey, expert's levels of familiarity with the field were 0.938 and 0.938, while expert's judgment criterions were 0.868 and 0.878. Thus the authority coefficients for the two rounds were 0.903 and 0.908, indicating high enough degree of authority of the participating experts. Training content covered the overview of HC, comfort care, heart-spirit-community support, hospice services, ethics and law, communication skills and stress response. After proposed adjustments the final training program for HC nursing specialists included 8 first-level sections, 24 second-level sections, and 57 third-level sections, designed for theoretical training time of 4 weeks and practical training of 8 weeks. *Conclusion:* The new training program for Hospice Care nursing specialists was constructed and evaluated by experts. Content of the program was considered to be comprehensive and reliable, and could provide a reference for the training of HC nursing specialists in China.

**Keywords:** Hospice Care, Hospice and Palliative Care Nursing, Nurse Specialists, China, Surveys and Questionnaires

## 1. Introduction

Hospice care (HC) is centered on dying patients and their families, using a multidisciplinary collaborative approach to provide patients with psycho-social support and pain/symptom control, so that dying patients can pass away peacefully, comfortably, and with dignity [1, 2]. Basic nursing services in HC are provided by specialist nurses, whose involvement and training are essential to improve the overall quality of the entire healthcare system [3]. Accordingly, various training systems and curriculums have been adopted worldwide, including training models, certification assessments and role functions, designed to strengthen nursing service capabilities. Although in China HC model is less

popular, due to the aging of population in recent years the need for it increased dramatically [4].

With the increasing demand and insufficient supply of HC services in China [5], the national-level hospice system has been developing rapidly since 2017, with the legal framework updating continuously, and the regional regulatory environment gradually being established and improved (Circular of the General Office of the National Health and Family Planning Commission on issuing practical Guidelines for palliative Care (trial)). In December 2019, Article 36 of the Basic Medical and Health Promotion Law of the People's Republic of China stated that "medical and health institutions at all levels and various types shall divide their work and cooperate to provide citizens with comprehensive and

full-cycle medical and health services such as prevention, health care, treatment, nursing, rehabilitation, and hospice care" (Ational Health and Family Planning Commission). Thus, the state's support confirms the legal status and importance of HC services for the Chinese healthcare system.

However, despite the support of state and regional laws, the development of the HC therapy and nursing training programs is far from meeting the current needs. Only a few colleges and universities offer elective courses related to HC, without unified teaching materials and class hours. In medical institutions, general nursing training is often characterized by long theoretical class hours, short practical class hours, and biased training programs, while specifics of HC are not discussed. A standardized and reasonable localized nursing care model has not been established, and as a result, the development of scientific and practical training programs was delayed. It determines the necessity for active research in the field of training HC nursing specialists, with the help of up-to-date techniques and methods.

The Delphi method is a technique for collecting and organizing informed opinions from a group of competent specialists in a certain area [6], previously applied to palliative care research. Based on the Delphi method, this study aimed to construct and adjust a novel training program focused on the cultivation of practical skills, in order to provide a reference for the training of HC nursing specialists in China.

## 2. Methods

### 2.1. Panel Member Recruitment

This study applied Delphi method to collect and analyze opinions of specially selected experts, who have knowledge or practical experience related to HC, from different regions and organizations in China. From October to December 2020 two rounds of expert letter inquiries were carried out using email, WeChat phone messenger and face-to-face interviews. Selection criteria for experts were as following: 1) Clinicians, nurses and education experts in comprehensive tertiary-level A hospitals or tertiary-level oncology hospitals engaged in palliative care, elderly care, and hospice care; 2) Work experience in this professional field  $\geq 10$  years; 3) Bachelor degree or above, intermediate and above professional and technical titles; 4) Voluntary participation in this research; 5) Continuous participation in several rounds of correspondence inquiries. Study has been approved by the Ethics Committee of Deyang People's Hospital (Ethics Approval Number: LWH-OP-007-A04-V1.0). Before issuing the expert consultation questionnaire, the informed consent was obtained from all participants.

### 2.2. Draw up an Expert Letter Questionnaire

According to the preliminary training plan for HC nursing specialists, the first round of expert letter questionnaires was prepared, consisting of four parts:

- 1) Questionnaire description: introduces background, purpose, main content and filling method of the questionnaire;

- 2) Expert basic situation survey form: includes age, education background, professional title, main work area, work experience;
- 3) Main inquiry form: experts were required to score the importance and operability of each indicator, using the typical five-level Likert item, with 1~5 representing "extremely unimportant~very important" or "No operability~extremely strong operability", and fill "modification comments" column and "additional remark" column;
- 4) Expert self-evaluation scale: experts were asked to fill the judgment criterion score (Ca) and field familiarity score (Cs). The expert's judgment criterion score included four dimensions: theoretical analysis, practical experience, understanding of domestic and foreign field, and subjective evaluation. Each dimension was divided into three levels: large, medium, and small according to the degree of influence on expert judgment, and assigned values of 0.3 for large, 0.4 for medium, and 0.3 for small. The expert's level of familiarity with the field scale was divided into five levels: "most familiar", "familiar", "general", "less familiar" and "unfamiliar", with values of 0.9, 0.7, 0.5, 0.3, and 0.1 respectively.

### 2.3. Implementation of Correspondence and External Verification

Inquiries were carried out using email, phone messenger or face-to-face interviews. After the end of the first round of correspondence, we excluded expert opinions marked as "less familiar" or "unfamiliar", and combined the criteria for indicators with an average importance score  $> 3.5$ , an average operability score  $> 3.5$ , and a coefficient of variation  $< 0.25$ . After discussing opinions of experts and the results of the first round of inquiries, the plan was modified to form the second round of letter questionnaires. Second round of correspondence was carried out in the following 10-14 days and after two rounds of letter inquiries, the content and weight distribution of each indicator was sorted and analyzed.

External reviewers were invited to comment on the importance, relevance, comprehensive and applicability of the study results.

### 2.4. Statistical Methods

Data analysis was performed using SPSS 22.0 (IBM, Armonk, NY, USA). Counting data is expressed as n (%); measurement data is described with means  $\pm$  standard divisions (SD). Expert positive coefficient is expressed as the ratio of experts who finished 2 rounds of survey to the total number of experts; expert authority coefficient (Cr) is determined by the average of the sum of an expert's level of familiarity with the field (Cs) and a judgment criterion (Ca) according to the formula  $Cr = (Ca + Cs)/2$ ;  $Cr \geq 0.70$  is generally considered as acceptable, and the coordination and consistency of answers are tested by the Kendall harmony coefficient and the coefficient of variation.  $P < 0.05$  indicates that the difference is statistically significant.

### 3. Results

#### 3.1. Socio-Demographic and Professional Characteristics of Experts

During the study period, a total of 17 experts from 14 tertiary hospitals and 3 nursing colleges across the China (Sichuan, Zhejiang, Hunan, and Jiangsu) participated in the survey. In the first round, 16 out of 17 experts invited to

participate in the study have responded, with the expert positive coefficient of 93.8%. In the second round of survey, all 16 experts responded with a response rate of 100%. The average age of experts was ( $43.15 \pm 6.33$ ) years, and the average working experience was ( $20.38 \pm 6.97$ ) years. The socio-demographic and professional characteristics of the participants are shown in Table 1.

**Table 1.** Socio-demographic and professional characteristics of experts.

	Round1 (n=16)	Round2 (n=16)
Age, years n (%)		
35-44	8 (50.0)	8 (50.0)
45-54	6 (37.5)	6 (37.5)
55-64	2 (12.5)	2 (12.5)
Sex, n (%)		
Male	3 (18.8)	3 (18.8)
Female	13 (81.2)	13 (81.2)
Highest level of education, n (%)		
Bachelor's degree	9 (56.3)	9 (56.3)
Master's degree	5 (31.3)	5 (31.3)
Post-master's degree	2 (12.4)	2 (12.4)
Years of experience in care, n (%)		
10~20	4 (25)	4 (25)
21~30	6 (37.5)	6 (37.5)
>30	6 (37.5)	6 (37.5)
Role, n (%)		
Specialist nurse/ palliative care nurse	13 (81.3)	13 (81.3)
Doctor	2 (12.5)	2 (12.5)
Educator	1 (6.2)	1 (6.2)

#### 3.2. Expert Authority and Coordination of Expert Opinions

For the two rounds of survey, expert's levels of familiarity with the field were 0.938 and 0.938, while expert's judgment criterions were 0.868 and 0.878. Thus, the authority coefficients for the two rounds were 0.903 and 0.908, indicating high enough degree of authority of the participating experts.

The coefficient of indicators variation in the first round of expert letter inquiries was from 0 to 0.26, and in the second round was from 0.02 to 0.22, indicating that the coordination degree of the two rounds of expert letter inquiries are relatively high; the Kendall harmony coefficient of the first round was 0.29 ( $P=0.033$ ), and for the second round was 0.22 ( $P=0.019$ ).

#### 3.3. Revision of the Training Program for HC Nursing Specialists

Proposed content of the training program for HC nursing specialists is demonstrated in Table 2. After the first round of letter inquiries, 6 experts put forward 8 suggestions for modification. Based on the combination of index selection criteria and expert opinions, after discussion by the project team members, 3 first-level sections and 2 third-level sections were combined. Sections "Symptom management", "Nutrition Support", and "Spiritual Care" were merged into "Comfort

Care", while "Current Situation of Access Standards for Hospice care Treatment at Home and Abroad" and "Access System for Hospice care Treatment" were merged into "Access Standards for Hospice care". Two second-level sections and one third-level section were added, including "Nurse emotional management", "Statistical Analysis", "Research paper writing".

Two three-level sections were deleted, including "Implementation of hospice care" and "Evaluation of hospice care quality". One first-level and one third-level sections were modified, with title "Psychological support-spiritual care-social support" changed to "Psychological-spiritual-social support", and title "Problems that family members may encounter in funerals" changed to "Assist family members in matters related to bereavement".

In the second round of expert letter inquiries, 2 experts proposed 2 amendments. After discussion among project team members, two more three-level sections were revised. Title "Expected grief treatment and evaluation" was changed to "Anticipatory Grief Evaluation and Coping Strategies"; title "Spiritual care measures and methods" was changed to "Spiritual care programs". Finally, a training program for HC nursing specialists was formed, including 8 first-level sections, 24 second-level sections, and 57 third-level sections, as detailed in Table 2.

**Table 2.** Consultation results of hospice care nursing specialists training program.

Project	Importance score (mean $\pm$ SD)	Coefficient of Variation (%)	Full score
A. Overview of hospice care	4.81 $\pm$ 0.40	0.083	81.3
A1 Basic knowledge of hospice care	4.94 $\pm$ 0.25	0.051	93.8
(1) The origin and development of hospice care	5.00 $\pm$ 0.00	0.000	100.0
(2) The concept and meaning of hospice care	4.56 $\pm$ 0.51	0.112	56.3
(3) Access standards for hospice care	4.94 $\pm$ 0.25	0.051	93.8
(4) Similarities and differences between hospice care and euthanasia and death with dignity	4.63 $\pm$ 0.50	0.108	62.5
A2 Career development of hospice care specialist nurses	4.94 $\pm$ 0.25	0.051	93.8
(1) The role, responsibilities and requirements of nurses in hospice care	4.75 $\pm$ 0.45	0.095	75.0
(2) The role of hospice care specialist nurses at home and abroad	4.13 $\pm$ 0.62	0.144	25.0
(3) Career planning of hospice care specialist nurses	4.13 $\pm$ 0.72	0.048	31.3
B. Comfortable care	4.81 $\pm$ 0.40	0.083	81.3
B1 Symptom management	5.00 $\pm$ 0.00	0.000	100.0
(1) Physiological changes in end-stage patients	4.56 $\pm$ 0.72	0.159	68.8
(2) Evaluation methods of pain symptoms, management and use principles of narcotic psychotropic drugs	4.69 $\pm$ 0.70	0.149	81.3
(3) Difficulty breathing, cough and sputum, hemoptysis, nausea and vomiting, hematemesis and blood in the stool, abdominal distension, constipation, sleep or wakefulness disorder, clinical manifestations, treatment and nursing measures of delirium	4.81 $\pm$ 0.40	0.083	81.3
B2 Nutritional support	4.25 $\pm$ 0.68	0.160	37.5
(1) Nutrition-related symptoms and signs in end-stage patients	4.56 $\pm$ 0.73	0.160	68.8
(2) Nutrition Screening and Evaluation Scale	4.75 $\pm$ 0.58	0.122	81.3
(3) Diet management strategy	4.56 $\pm$ 0.73	0.160	68.8
(4) Enteral and parenteral nutrition care	4.56 $\pm$ 0.82	0.178	68.8
B3 Comfort care	4.38 $\pm$ 0.72	0.164	50.0
(1) Posture and pressure sore care, oral care, wound stoma care, excretion and incontinence care, lymphedema care	4.75 $\pm$ 0.45	0.094	75.0
(2) Bathing, wiping on the bed, and washing hair on the bed	4.63 $\pm$ 0.72	0.156	75.0
(3) Catheter assessment and management	4.56 $\pm$ 0.73	0.160	68.8
(4) Home Care Guidance	4.56 $\pm$ 0.73	0.160	68.8
(5) Other nursing strategies: aromatherapy, meaning therapy, music therapy, traditional Chinese medicine care	4.69 $\pm$ 0.70	0.149	81.3
B4 Dying care	4.81 $\pm$ 0.54	0.112	87.5
(1) Anticipatory Grief Evaluation and Coping Strategies	4.44 $\pm$ 0.81	0.182	62.5
(2) Evaluation of near-death symptoms	4.43 $\pm$ 0.96	0.223	68.8
(3) Preparation and care for dying	4.50 $\pm$ 0.82	0.182	68.8
(4) Precautions for notification of illness	4.56 $\pm$ 0.73	0.160	68.8
C. Psychological-spiritual-social support	4.63 $\pm$ 0.72	0.156	75.0
C1 Psychological support	4.69 $\pm$ 0.60	0.128	75.0
(1) Psychological characteristics and clinical manifestations of end-stage patients and their families	4.56 $\pm$ 0.73	0.160	68.8
(2) Evaluation methods of the psychological needs of end-stage patients and their families	4.63 $\pm$ 0.72	0.156	75.0
(3) Common psychological support and psychological counseling techniques	4.56 $\pm$ 0.73	0.160	68.8
C2 Spiritual care	4.63 $\pm$ 0.62	0.133	68.8
(1) The spiritual distress and needs of end-stage patients and their families	4.56 $\pm$ 0.73	0.160	68.8
(2) Spiritual care program	4.44 $\pm$ 0.73	0.164	56.3
C3 Social support	5.00 $\pm$ 0.00	0.000	100.0
(1) Social support evaluation method	4.38 $\pm$ 0.72	0.164	50.0
(2) Methods and precautions for family meetings	4.56 $\pm$ 0.73	0.160	68.8
(3) Support for hospice care from social workers and volunteers	4.69 $\pm$ 0.70	0.149	81.3
(4) Volunteer Management Strategy	4.69 $\pm$ 0.70	0.149	81.3
(5) Provide consultations on law, referrals, living wills, etc.	4.38 $\pm$ 0.50	0.114	75.0
D. Hospice service	4.75 $\pm$ 0.45	0.009	75.0
D1 Death education	4.81 $\pm$ 0.40	0.083	81.3
(1) The concept, standard, goal and method of death education	4.50 $\pm$ 0.62	0.134	56.3
(2) The role of nurses in death education	4.31 $\pm$ 0.70	0.162	43.8
(3) Guide end-stage patients and their families to recognize and face death	4.75 $\pm$ 0.45	0.081	75.0
D2 Grief counseling	4.56 $\pm$ 0.63	0.138	62.5
(1) Principles and timing of grief counseling	4.31 $\pm$ 0.60	0.139	37.5
(2) The process and method of grief counseling	4.81 $\pm$ 0.40	0.083	81.3
E. Ethics and Law	4.50 $\pm$ 0.73	0.162	62.5
E1 Rights of terminal patients and their families	4.38 $\pm$ 0.50	0.114	37.5
(1) End-stage patients' autonomy, medical information, privacy, and hospice rights	4.69 $\pm$ 0.60	0.128	75.0
(2) Respect the treatment wishes of end-stage patients and their families	4.50 $\pm$ 0.73	0.162	62.5
(3) Principles, strategies, procedures and ethical principles of illness notification	4.38 $\pm$ 0.72	0.164	50.0
E2 Dignity of terminal patients and their families	4.56 $\pm$ 0.63	0.138	62.5
(1) Dignity of end-stage patients	4.56 $\pm$ 0.63	0.138	62.5
(2) The application prospects and challenges of dignity therapy	4.50 $\pm$ 0.52	0.116	50.0

Project	Importance score (mean $\pm$ SD)	Coefficient of Variation	Full score (%)
(3) Methods and content of dignity therapy	4.81 $\pm$ 0.40	0.083	81.3
E3 Customs and religious beliefs of end-stage patients	4.19 $\pm$ 0.66	0.158	31.3
(1) The Ethical Issues of Disposal of Remains	4.25 $\pm$ 0.86	0.202	50.0
(2) Body care	4.06 $\pm$ 0.85	0.209	37.5
(3) Assist family members in matters related to bereavement	4.62 $\pm$ 0.72	0.156	75.0
E4 Hospice care policy and law	4.19 $\pm$ 0.54	0.129	25.0
(1) Interpretation of "Natural Death Act", "Preliminary Medical Agent Act", "Death with Dignity Act", "National Comprehensive Cancer Network (NCCN) Palliative Care Clinical Practice Guidelines"	4.19 $\pm$ 0.83	0.198	43.8
(2) Interpretation of "Hospice Care Practice Guide (Trial)", "Hospice Care Center Management Standards (Trial)", "Hospice Care Center Basic Standards Trial" in Mainland China	4.19 $\pm$ 0.75	0.179	37.5
(3) Interpretation of the "Regulations on Hospice care and Palliative Medical Care" and "Patient Autonomy Law" in Taiwan	4.19 $\pm$ 0.83	0.198	43.8
(4) Legal liability for analgesia "dual effect" principle	4.25 $\pm$ 0.86	0.202	50.0
F. Communication skills and coping with stress	4.56 $\pm$ 0.51	0.118	56.3
F1 Communication skills	4.75 $\pm$ 0.58	0.122	81.3
(1) Definition and meaning of communication	4.31 $\pm$ 0.79	0.183	50.0
(2) Communication skills, principles, methods	4.63 $\pm$ 0.81	0.175	81.3
F2 Stress response	4.81 $\pm$ 0.40	0.083	81.3
(1) Nurses' psychology and methods of stress assessment	4.44 $\pm$ 0.81	0.182	62.5
(2) Identification of nurse occupation/energy exhaustion	4.69 $\pm$ 0.70	0.149	81.3
(3) Self-management strategy of nurses' professional psychological quality	4.68 $\pm$ 0.70	0.149	81.3
(4) Nurse emotional management	4.75 $\pm$ 0.45	0.009	75.0
G. Nursing Research	4.81 $\pm$ 0.54	0.112	87.5
G1 Literature search strategy	4.94 $\pm$ 0.25	0.051	93.8
G2 Research design	4.44 $\pm$ 0.51	0.115	43.8
G3 Statistical Analysis	4.50 $\pm$ 0.63	0.140	56.3
G4 Research paper writing	4.88 $\pm$ 0.34	0.069	87.5
G5 Evidence-based practice of hospice care	4.56 $\pm$ 0.63	0.137	62.5
H. Training period	4.38 $\pm$ 0.50	0.114	37.5
H1 Theory teaching 4 weeks	3.81 $\pm$ 0.54	0.142	25.0
H2 Practical teaching for 8 weeks	4.38 $\pm$ 0.50	0.114	37.5

### 3.4. External Verification

Full program, including 8 first-level sections, 24 second-level sections, and 57 third-level sections was evaluated by the unanimous external reviewer. The reviewer expressed a positive attitude towards the relevance and applicability of the training program, and believed that the program fully reflects the nurses' ability to implement hospice care in daily clinical practice.

## 4. Discussion

Based on the Delphi method, this study aimed to construct and adjust a novel training program focused on the cultivation of practical skills, in order to provide a reference for the training of HC nursing specialists in China.

Through literature research [7, 8] we refined the curriculum, training methods, evaluation indicators and other content, in order to construct the nursing training program appropriate for real clinical practice in today's China. Constructed program was proposed for evaluation to 17 experts in the field of HC using Delphi method, with the expert positive coefficient of 93.8%. For the two rounds of survey, expert's authority coefficients were 0.903 and 0.908, indicating high enough degree of authority of the participating experts. Training content covered an overview of HC, comfort care, heart-spirit-community support, hospice services, ethics and law, communication skills and stress response. After proposed

adjustments the final training program for HC nursing specialists included 8 first-level sections, 24 second-level sections, and 57 third-level sections, designed for theoretical training time of 4 weeks and practical training of 8 weeks.

With the aging of population, the incidence of cardiovascular diseases, cancer, diabetes, etc., is gradually increasing, as well as the demand for hospice care of the elderly and patients with end-stage clinical diseases. Being an important part of high-quality medical care services, HC can improve the comfort of end-stage patients, improve their quality of life, and save medical resources for the health system and society as a whole [9, 10]. As of 2016, less than 1% of hospitals in China provided hospice services [11], and only 6% of the guidelines involved HC related nursing content [12]. In our study after two rounds of Delphi method-based correspondence, 62.5% and 12.5% of experts suggested amendments, indicating that the experts were highly motivated to change the current state of HC and related education. The authority coefficient (0.903), expert's level of familiarity with the field (0.938) and expert's judgment criterion (0.868) were all relatively high compared to other studies and expert opinions tend to be consistent, which allows to consider content of the training program to be comprehensive and reliable [13].

Although many countries already have standardized training programs for HC [14], it is impossible to directly apply those regimens in China due to cultural differences. In recent years, Chinese scholars have successively conducted

studies on the training program, core competence, and evaluation indicators for general and HC nursing [15], preparing the preliminary foundation for carrying out relevant research. Training program used in this study included 7 aspects of nursing care, covering professional knowledge and skills, as well as related knowledge of policies, ethics, and laws, in order to help nursing specialists deal with emergencies of end-stage patients, and protect their rights and interests while providing patients with peaceful treatment.

The proposed training program uses a combination of theoretical and practical training, with the emphasis on practical skills. According to experts, who participated in the evaluation and amendment of the program, concept and significance of sections 1-3 (Overview of HC, Comfort care and Psychological-spiritual-social support) were rated 5.0, with the coefficient of variation being 0, indicating that all experts agree on importance of HC understanding, symptom management and social support methods. After ample discussion "Death education" section has been added to the training program. Content of this section is focused on helping HC nurses to answer the psychological needs and changing beliefs of terminal patients and their families, as well as teaching how to use popular science tools to approach the concept of life and death. Finally, it is important to note that aspect of "Nursing research" was rated high as well ( $4.81 \pm 0.54$ ), with many experts stressing that mastering literature search, evidence-based nursing and other methods will help nursing specialists to understand the progress of HC research and actively carry out evidence-based practice.

This study has certain limitations. Due to the time, manpower, and financial considerations, limited number of experts has been recruited. With 16 authoritative, reliable, and representative experts this study results are still considered feasible, however due to them being mainly from the south of China, their representativeness may have certain regional biases. In addition, presented training program for nursing specialists also needs to be evaluated via intervention studies to confirm its applicability and true validity. Therefore, the results of this study should be interpreted with caution and for the future research it is necessary to expand the scope of the investigation, in order to improve the quality of the results.

## 5. Conclusion

The new training program for Hospice Care nursing specialists was constructed and evaluated by experts. Content of the program was considered to be comprehensive and reliable, and could provide a reference for the training of HC nursing specialists in China.

## Conflicts of Interest

Authors have no conflicts of interest to declare.

## Funding Source

This research is a popularization and application project of

the Sichuan Provincial Health Commission, and has been strongly supported by the Sichuan Provincial Health Commission (20PJ242; 20PJ244).

## Acknowledgements

The author thanks Sichuan Provincial Health Commission for the fund support.

## References

- [1] Rosa, W. E, Ferrell, B. R. & Mazanec, P. Global Integration of Palliative Nursing Education to Improve Health Crisis Preparedness. *J Contin Educ Nurs*, 2021, 52 (3), 130-135.
- [2] Hyden, K, Gelfman, L, Dionne-Odom, J, et al. Update in Hospice and Palliative Care. *J Palliat Med*, 2020, 23 (2), 165-170.
- [3] Han, G. G, Chen, C. Y, Shi, Y. Enlightenment from the current situation of research and training on the core Competence of hospice nurses abroad to China. *Chinese Nursing Management*, 2019, 19 (5): 796-800.
- [4] FANG E F, XIE C, SCHENKEL J A, et al. A research agenda for ageing in China in the 21st century (2nd edition): Focusing on basic and translational research, long-term care, policy and social networks [J]. *Ageing Res Rev*, 2020, 10 (1): 174.
- [5] Sleeman, K. E, de Brito, M, Etkind, S, et al. The escalating global burden of serious health-related suffering: projections to 2060 by world regions, age groups, and health conditions. *Lancet Glob Health*, 2019, 7 (7), e883-e892.
- [6] Chen, JY, et al. Application status quo of Delphi Method in evaluation index of specialty nursing quality. *Nursing Research*, 2016, 30 (29), 3591-3595.
- [7] Frey, R, Balmer, D, Boyd, M, et al. Palliative care nurse specialists' reflections on a palliative care educational intervention in long-term care: an inductive content analysis. *BMC Palliat Care*, 2019, 18 (1), 103.
- [8] Clark JE, Aitken S, Watson N, et al. Training oncology and palliative care clinical nurse specialists in psychological skills: evaluation of a pilot study. *Palliat Support Care*. 2015; 13 (3): 537-542.
- [9] Centeno, C. & Arias-Casais, N. Global palliative care: from need to action. *Lancet Glob Health*, 2019, 7 (7), e815-e816.
- [10] KRUK ME, GAGE AD, ARSENAULT C, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health*, 2018, 6 (11): e1196-e1252.
- [11] Li, Y. Y. & Chen, W. J. Application status of Delphi Method in Nursing Management. *Nursing Research*, 2018, 32 (21), 3339-3341.
- [12] Mo, L, Urbauer, D. L, Bruera, E. & Hui, D. Recommendations for Palliative and Hospice Care in NCCN Guidelines for Treatment of Cancer. *Oncologist*, 2021, 26 (1), 77-83.
- [13] Li Z, Hung P, He R, et al. Disparities in end-of-life care, expenditures, and place of death by health insurance among cancer patients in China: a population-based, retrospective study. *BMC Public Health*. 2020, 20 (1): 1354.

- [14] Ferrell, B., Malloy, P. & Virani, R. The End of Life Nursing Education Nursing Consortium project. *Ann Palliat Med*, 2015, 4 (2), 61-69.
- [15] Fan, R. R, Li, X. Y, Huang, X. J, et al. Establishment of training system for hospice care nurses. *Chinese Journal of Nursing Education*, 2020, 17 (9), 779-784.