






# Factors Influencing the Knowledge and Attitudes of Hospice Care Practitioners in Guangxi, China: A Cross-Sectional Study

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**Purpose:** Practitioners in China who implement hospice care services include doctors, nurses, and care workers. These individuals play an important role in the holistic care of patients at the end of life and their families. This study aimed to provide baseline data to develop hospice care services and improve relevant policies by investigating the knowledge and attitudes of hospice care practitioners (HCPs) and analyzing influencing factors.

**Methods:** This cross-sectional descriptive study used stratified sampling and quota sampling. The HCPs were from nursing homes, medical institutions, integrated medical and nursing institutions, and community health service centers in Guangxi Zhuang Autonomous Region. We examined HCPs' demographic characteristics and scores on a self-designed Chinese scale to measure their knowledge and attitudes (K&A scale). A total of 1821 HCPs completed surveys from May 2022 to July 2022. The data were analyzed using descriptive statistics, univariate analysis and multiple linear regression.

**Results:** The standard score of the K&A scale of 1821 HCPs was 61.62 (SD=9.78), and the individual mean scores of knowledge and attitudes were 76.42 (SD=28.13) and 58.69 (SD=11.31), respectively. The final multiple linear regression analysis indicated that the main factors that influenced the K&A score were monthly income, job satisfaction, and the hospice care-related system (HCS).

**Conclusion:** The HCPs in this study displayed moderate mean scores for knowledge and a less favorable attitude toward hospice care. Monthly income, job satisfaction and the HCS were the common factors that influenced HCPs' K&A. The results suggest the need to strengthen targeted and professional training for HCPs, increase their welfare and benefits, and improve indigenous policies of hospice care.

**Keywords:** attitudes, hospice care practitioners, hospice care-related system, knowledge

## Introduction

According to estimations presented in the United Nations' 2015 Global Population Development Report, the global elderly population will reach 1.4 billion by 2030 and exceed 2 billion in 2050 and will account for 21% of the world's total population,<sup>1</sup> with most of the increase in developing countries.<sup>2</sup> An increasing life span means an increasing number of elderly people with chronic diseases.<sup>3</sup> Along with the increasing prevalence and mortality rate of chronic diseases such as cardiovascular and cerebrovascular diseases, malignant neoplasms, chronic obstructive pulmonary diseases, and diabetes mellitus among the whole population, deaths caused by these chronic diseases accounted for 73.6% of all deaths globally in 2019.<sup>4</sup> Consequently, the quality of life of end-stage patients has attracted increasing attention. To allow elderly people to live comfortably and die with dignity, the General Office of the State Council of the People's Republic of China clearly stated the need "to provide elderly persons with treatment-related hospitalization, rehabilitation-related care and hospice care integration for health and pension service".<sup>5</sup> Hence, hospice care to improve the quality of life of patients nearing the end of life has gradually entered the medical and health care system. Hospice care includes the concept of palliative care in China, and in 2017, the translation of the term

“hospice care” was officially determined to be “Anning Liaohu” in Chinese.<sup>6</sup> Hospice care is a care model produced and developed to meet the needs of terminal patients and their families and comprises physical, psychological, mental, and humanistic care for terminal-stage or elderly patients before their death. It aims to control pain and discomfort, improve the quality of life, and help patients die comfortably, peacefully, and with dignity.<sup>7,8</sup>

As a country with a large population, China’s demand for hospice care is enormous. The “China Nursing Career Development Plan (2016–2020)” proposes to promote, strengthen, and develop hospice care.<sup>9</sup> In 2017, the National Health Commission issued the Hospice Care Guidelines (Trial) to guide all localities in strengthening the construction and management of hospice care centers and standardizing hospice care services.<sup>10</sup> Since then, hospice care has developed rapidly; however, its progress is still hindered by factors such as unbalanced geographical distribution of services, limited service range, an imperfect hospice care system, and inadequate hospice care practitioners.<sup>11</sup>

Hospice care practitioners’ lack of knowledge is a substantial factor that forestalls hospice care development.<sup>12,13</sup> Practitioners’ knowledge and attitudes have a direct impact on the effectiveness of hospice care.<sup>14</sup> The knowledge-attitudes-practices model of health education is a behavior change theory known as a cognitive model and is a more mature model of behavioral change.<sup>15</sup> It points out that there is a progressive relationship between knowledge, attitudes, and practices. When practitioners understand hospice care knowledge as a foundation, begin to think positively and develop a strong sense of responsibility as motivations, they are likely to generate the healthy practices of providing hospice care services.<sup>16</sup> Therefore, understanding practitioners’ knowledge and attitudes plays an important role in the development of hospice care.

Guangxi is a Zhuang autonomous region in southern China where the aging situation is more serious than the national level. According to the National Bureau of Statistics of the People’s Republic of China, by the end of 2020, the number of elderly people aged 60 and above reached 264 million, accounting for 18.7% of the national population, and 8,363,800 people in Guangxi were over age 60, accounting for 16.69% of the region’s population.<sup>17</sup> A survey conducted in 2019 of 1,032 people over age 60 from three cities in the Guangxi Zhuang Autonomous Region found the prevalence of chronic diseases among them to be 78%.<sup>18</sup> This situation yields great potential demand for hospice care, but the hospice care service rate is slow.<sup>19</sup> One study found that 1200 undergraduate nursing students from Guangxi expressed minimal knowledge about palliative care, and the majority held negative attitudes and were unwilling to work in palliative care in the future.<sup>20</sup> Another study we conducted in 2022 surveyed 1833 clinical nurses in tertiary and secondary hospitals in Guangxi who demonstrated knowledge gaps and moderate attitudes toward hospice care, and only 505 of them expressed a desire to practice hospice care.<sup>12</sup> In Germany, Canada, and other countries, medical personnel are the main providers of hospice care.<sup>21–23</sup> In China, hospice care service practitioners include doctors, nurses, and care workers. As the executor and main body of hospice care, these health care professionals play an important role in the holistic care of end-stage patients and their families. In China and many other countries, the current research in hospice care studies is aimed at clinical nurses, and few studies have provided a comprehensive understanding of the knowledge and attitudes of hospice care practitioners from the perspectives of nurses, doctors and care workers. Hence, the findings of this survey bridge a gap in Guangxi and reflect an empirical study of the development of hospice care services and the improvement of relevant policies.

## Methods

### Study Design and Sample Size

This cross-sectional descriptive study used stratified sampling and quota sampling. Institutions with hospice care were classified according to institution type: nursing homes, medical institutions, integrated medical and nursing institutions, and community health service centers. After we randomly selected fifty percent of each type of institution by using stratified sampling method, Quota sampling was then used to determine the sample size of doctors, nurses and care workers to be surveyed based on the proportion of their numbers in the surveyed institutions. The required total sample size was determined by utilizing the formula for cross-sectional surveys. The prevalence of HCPs’ knowledge and attitudes regarding hospice care in the study area is unknown. Therefore, we assumed that the proportion was 50% ( $p=0.5$ ) to recruit a larger sample size. By using a 5% margin of error ( $d$ ) and a design effect (DEFF) of 2 and adding a nonresponse rate of 10%, the minimum sample size required was determined to be 847.<sup>24</sup>

$$N = \frac{Z_{1-\alpha/2}^2 P(1-P)}{d^2}$$

## Participants and Period

Thirty-two hospice care institutions in Guangxi, China were recruited for the study: 10 nursing homes, 7 medical institutions, 8 integrated medical and nursing institutions, and 7 community health service centers. The inclusion criteria for hospice care institutions were as follows: the duration of hospice care was  $\geq 1$  year, and the number of beds was  $\geq 5$ . The inclusion criteria for the practitioners were age  $\geq 18$  years and more than one year's experience providing hospice care. The exclusion criterion for the practitioners were a lack of employment as a staff member in a formally designated position, such as volunteers, interns and advanced-study students. All participants were informed that they could discontinue or withdraw from the study at any time for any reason. From May 2022 to July 2022, 1,902 practitioners were invited to participate.

## Measurements

A self-administrated questionnaire was used to collect the data. The questionnaire comprised two parts. The first part was a survey of sociodemographic and potential influencing factors, with questions about sex, age, ethnicity, education, nationality, profession, professional qualifications, working years, monthly income, professional title, marital status, religious beliefs, physical status, sources of knowledge of hospice care, frequency of hospice care training, job satisfaction, whether the hospice care system and supervision need to be improved, and ways to learn about hospice care.

The second part was the scale of the knowledge and attitudes of hospice care practitioners (K&A scale). The K&A scale was compiled based on the theory that basic knowledge and the establishment of positive beliefs makes it possible to develop scientific behaviors that are beneficial to health.<sup>25,26</sup> A pilot survey was conducted among 290 hospice care workers in Guangxi to test its reliability and validity. The total Cronbach's  $\alpha$  coefficient of the scale was 0.90, and the coefficients for knowledge and attitudes were 0.70 and 0.75, respectively. The content validity was 0.893. The K&A scale consisted of 19 items in two dimensions: knowledge (10 items) and attitudes (9 items). The knowledge dimension comprised the concept, physiology, psychology, service content, and social support of hospice care. Each item had three response options, "right", "wrong", and "do not know". An answer of "right" was awarded 1 point, and an answer of "wrong" or "do not know" was awarded 0 points. Higher scores indicated a greater level of hospice care knowledge. The attitude dimension included the cognitive attitude toward hospice care, acceptance of hospice care, support for hospice care, choice of hospice care, personal death and attitudes toward death and dying, attitude toward patients and family members, self-assessment of hospice care knowledge, attitude toward death education and hospice care education. Each item was scored using a 5-point Likert scale that ranged from 1 ("strongly agree") to 5 ("strongly disagree"), and a higher score indicated a more positive hospice care attitude. The details of the compilation process have been published in Chinese.<sup>27</sup>

## Data Collection

The online survey conducted via a questionnaire website platform was sent to the heads of each organization providing hospice care services (from Nanning City, Guilin City, Baize City, Wuzhou City, Beihai City, Chongzuo City, Guigang City, Liuzhou City, and Qinzhou City in Guangxi, China), who were then asked to send the questionnaire to the eligible participants. The survey contained an invitation letter containing information regarding the study's purpose and procedures and the time required to respond to the questionnaire (10–20 min). The questionnaire could be submitted only after all questions had been answered. Consent via electronic signature was assumed if the participants connected to the website link and completed the questionnaire.

## Data Analysis

Data were analyzed using SPSS version 26.0 (IBM Corporation, Armonk, NY, USA). Frequencies and percentages were used to summarize categorical variables (participants' general information), and the mean and standard deviation (SD) were used to express continuous variables (knowledge and attitudes). Potential factors that influenced knowledge and attitudes were identified by univariate analyses (independent samples *t* tests and ANOVAs) to ascertain the differences between groups. Then we performed a multiple linear analysis using the score of K&A and the two K&A dimensions as the dependent variable, respectively, and all potential factors that were identified by the univariate analyses as independent variable, in order to identify the main influencing factors of HCPs' K&A, knowledge and attitudes. All analyses were based on two-sided *p* values, and statistical significance was set at  $p < 0.05$ .

## Results

### Demographics

In this study, a total of 1,902 questionnaires were collected, and 81 questionnaires were excluded due to low quality; therefore, the final analysis included 1,821 surveys (for a valid response rate of 95.74%). Among the respondents (Figure 1), 527 were men (28.94%), and 1294 were women (71.06%). There were 711 nurses (39.04%), 648 nursing workers (35.58%), and 462 doctors (25.37%). The participants' ages ranged from 18 to 60 ( $32.07 \pm 8.29$ ) years. The years of work experience ranged from 1 to 42 ( $8.65 \pm 13.49$ ) years (Figure 1). Table 1 presents other detailed demographics.

### Hospice Care Providers' Scores on the K&A Scale

The scores on the K&A scale ranged from 9 to 55. Using percentiles, the standard score (Standard score =  $M \text{ score} / \text{Full score} \times 100\%$ ) of the total score and each dimension were divided into three grades: good ( $> 85$ ), moderate (60–85), and poor ( $< 60$ ).<sup>28</sup> The mean total score of the K&A scale was 33.90 (SD=5.38), and the standard score was 61.62 (SD=9.78) (Figure 2), which indicated a moderate level.

### Knowledge About Hospice Care and Influencing Factors

The average score for the knowledge dimension was 7.62 (SD=2.80), and the standard score was 76.42 (SD=28.13) (Figure 2). In terms of the correctness of the answers, 66.44% of practitioners did not understand the concept and connotation of hospice care. The percentages of correct answers to items related to communication methods, psychological counseling, physiological knowledge, and hospice care for advanced patients and their families were all less than 50%. Our univariate

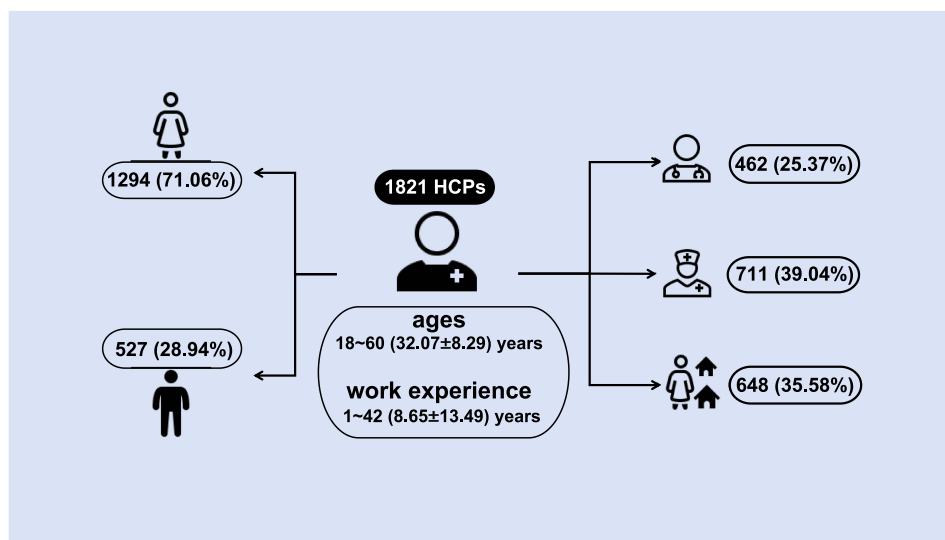


Figure 1 Demographics of 1821 HCPs.

**Table I** Univariate Analysis of Knowledge and Attitudes of the Different Demographic Characteristics of the HCPs (N=1821)

item	N	Knowledge			Attitudes		
		M(SD)	t/F	P	M(SD)	t/F	P
Sex			0.921	0.36		1.376	0.172
Male	527	7.42(3.28)			25.46(7.37)		
Female	1294	7.62(2.77)			26.38(5.29)		
Profession			2.723	0.04		1.553	0.198
Doctors	462	8.16(2.30)			26.89(5.92)		
Nurses	711	7.98(2.86)			26.20(4.400)		
Care workers	648	7.18(3.01)			24.71(8.02)		
Education			8.132	< 0.001		3.645	< 0.01
Vocational training degree	884	7.32(3.34)			26.86(6.31)		
≥ Bachelor degree	937	8.11(2.69)			26.97(5.05)		
Professional qualification			6.368	< 0.001		1.266	0.284
Primary	1209	7.51(2.94)			26.13(5.78)		
Middle	455	7.98(2.43)			26.51(4.84)		
High	157	8.18(2.31)			26.93(4.50)		
Age (years)			1.240	0.29		2.721	0.028
18–25	390	7.93(2.45)			26.78(5.09)		
26–30	569	7.59(2.90)			25.83(5.69)		
31–35	324	7.47(3.03)			26.03(6.00)		
36–40	183	7.60(2.95)			27.04(4.59)		
40–60	355	7.77(2.63)			27.01(5.21)		
Work experience (years)			0.320	0.81		2.239	0.082
1–5	643	7.81(2.68)			26.59(5.28)		
6–10	529	7.69(2.84)			25.79(5.68)		
11–15	231	7.50(2.80)			26.45(5.61)		
≥ 16	418	7.57(2.85)			26.45(5.31)		
Monthly income			6.747	< 0.001		5.225	< 0.01
<3000 CNY <sup>a</sup>	182	7.02(3.29)			25.81(6.42)		
3000–4999 CNY <sup>a</sup>	830	7.46(2.97)			25.72(5.69)		
5000–8000 CNY <sup>a</sup>	659	7.83(2.63)			26.75(5.17)		
8000–9999 CNY <sup>a</sup>	113	8.42(2.05)			26.67(4.71)		
>10000 CNY <sup>a</sup>	37	8.49(1.14)			28.54(3.55)		

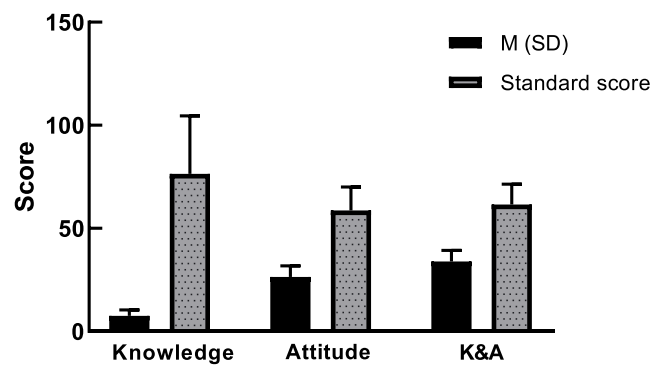
(Continued)

**Table 1** (Continued).

item	N	Knowledge			Attitudes		
		M(SD)	t/F	P	M(SD)	t/F	P
Physical condition			2.252	0.06		1.526	0.192
Good	633	8.14(2.34)			26.51(4.97)		
Average	1063	7.61(2.79)7.80(2.80)			25.81(6.35)		
With chronic diseases	117	7.73(2.32)			25.71(8.44)		
Acute illness	8	7.61(2.79)			25.58(4.36)		
Frequency of Hospice care training*			12.910	< 0.001		2.413	0.065
Once or twice a month	365	8.03(2.55)			26.71(6.02)		
Once every 3 months	484	7.96(2.44)			26.21(4.88)		
Once every 6 months	588	7.77(2.43)			25.73(5.08)		
More than once every 12 months	384	6.92(3.39)			25.67(6.22)		
Hospice care job Satisfaction			3.480	< 0.001		14.363	< 0.01
Very satisfied	293	8.11(2.83)			26.97(7.18)		
Satisfied	685	7.75(2.67)			26.35(5.15)		
Medium	691	7.40(2.70)			25.66(4.82)		
Dissatisfied	120	7.19(2.80)			23.70(4.30)		
Very dissatisfied	32	2.65(3.41)			23.29(8.03)		
Whether Hospice care system and supervision need to be improved			55.603	< 0.001		18.848	< 0.01
Much need	496	8.27(2.24)			26.86(6.72)		
Need	1061	7.75(2.57)			26.72(4.71)		
No need	117	6.47(3.74)			25.35(4.85)		
Does not matter	147	5.08(3.80)			23.22(5.39)		
Ways to learn about Hospice care			0.994	0.41		0.558	0.693
A lecture or conference	174	7.94(2.38)			26.51(5.42)		
Web or audio-visual resources	1141	7.61(2.89)			26.15(5.60)		
Textbooks or professional magazines	271	7.81(2.72)			26.60(5.19)		
Professional training	216	7.46(2.83)			26.27(5.48)		
Others	19	7.31(2.35)			25.58(4.65)		

Notes: M(SD), mean(Standard deviation); CNY<sup>a</sup>, Chinese Yuan; \*40min for each training time.

analysis revealed that significant differences occurred in practitioners' hospice care knowledge dimension scores because profession, professional qualification, education, monthly income, frequency of hospice care training, job satisfaction, and hospice care-related system (HCS) were the factors affecting knowledge (Table 1). However, multiple linear regression analysis demonstrated that education, monthly income, frequency of hospice care training, job satisfaction and hospice care-related system were the factors affecting knowledge (Table 2, Figure 3).



**Figure 2** The K&A score of 1821 Hospice care practitioners.

## Attitudes Toward Hospice Care and Influencing Factors

The average attitude dimension score was 26.43 (SD=5.42), and the standard score was 58.69 (SD=11.31) (Figure 2). Approximately 42.8% of participants thought that hospice care was less effective than therapeutic care, and 32.3% thought they had enough knowledge of hospice care and did not need further education. Nearly one-third (31.2%) believed that multidisciplinary teamwork interfered with patient care, and 22.3% believed that hospice care was of little significance. The univariate analysis revealed that education, age, monthly income, job satisfaction, and hospice care-related system were the factors affecting attitudes (Table 1). Furthermore, multiple linear regression analysis established that monthly income and the HCS were the factors influencing attitudes toward hospice care (Table 3, Figure 3).

## Discussion

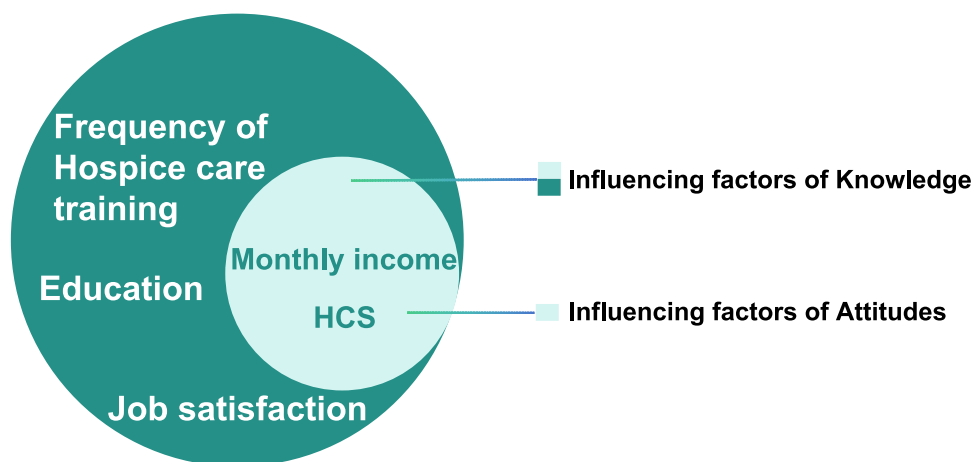
In October 2017, the first national hospice care pilot programs were launched. Based on the progress of the first batch of pilot programs, the National Health Commission launched the second batch in 71 cities (districts) in May 2019.<sup>29</sup> Qinzhou City, Guangxi, became a site for the second batch of hospice care pilot programs, and Guangxi medical and pension institutions have successively carried out hospice care services. Thus, the influence of hospice care should be expanding. However, our study found that the HCPs' standard score on the knowledge dimension was at a moderate level, which is consistent with previous studies conducted among nursing staff in other provinces of China.<sup>16,30,31</sup> The multiple linear regression analyses suggested that the frequency of hospice care training can influence practitioners' knowledge of hospice care. Among 1821 participants, only 994 (54.62%) practitioners received professional theoretical training in hospice care, and only 159 (8.78%) received practical training in hospice care, which suggests that hospice care training in Guangxi was poor. Previous studies have confirmed that practitioners' experience of hospice care education and training is positively related to their level of hospice care knowledge.<sup>32–34</sup> Our study results also showed that education was statistically significantly related to knowledge; an advanced education background resulted in high

**Table 2** The Results of the Multiple Linear Regression Analysis of the Influencing Factors of Hospice Care Knowledge

Independent Variable	B	SE	$\beta$	t	p
Constant	8.572	0.587	–	14.593	< 0.001
Education	0.414	0.114	0.090	3.622	< 0.001
Monthly income	0.219	0.090	0.064	2.418	0.02
Frequency of Hospice care training	–0.212	0.063	–0.077	–3.355	< 0.001
Satisfaction with the intensity of the work	–0.184	0.074	–0.057	–2.490	0.01
Whether Hospice care system and supervision need to be improved	–0.894	0.083	–0.251	–10.782	< 0.001

**Notes:** 95% CI,  $R^2 = 0.107$ ,  $F = 29.820$ ,  $p < 0.001$ .





**Figure 3** Influencing factors of Knowledge and attitudes toward hospice care.

K&A scores, and the same results were obtained by other domestic researchers.<sup>35,36</sup> Highly educated practitioners may have a wide range of knowledge, possess strong learning initiative and learn actively according to their own characteristics and professional needs to master more knowledge related to hospice care. Mastering professional knowledge of hospice care is the basis for establishing a positive attitude toward hospice care and standardizing hospice care practices. Therefore, managers of pension institutions should actively create conditions to attract nursing staff with high academic qualifications to join the hospice care team. Furthermore, various forms of hospice care education and training should be carried out to improve practitioners' hospice care knowledge and skills. Among the three job types we surveyed, the order of mastery of hospice care knowledge is as follows: doctors, nurses, and nursing workers. This finding indicates that hospice care training in Guangxi has been uneven; attention should be given to multilevel practitioners' education and training to meet their education needs, and courses for care workers also need to be developed.<sup>37</sup>

In terms of the attitude dimension score, it presented a less favorable attitude toward hospice care. The items with the highest agreement scores were "When a patient under one's medical care receives hospice care, it reflects a failure in one's own work" and "Hospice care is physician-assisted suicide". The items with the lowest agreement scores were "Hospice care usually meets the needs of the family better than curative care" and "Most dying elderly patients want their physicians to decide on the best form of care for them". Traditional medicine focuses primarily on treating the disease, while hospice care focuses on comforting or alleviating the patient's suffering. This may lead physicians to view incurable diseases as "medical failures". This negative attitude may impede the development of hospice care. Notably, the participants in this study were not only nurses and doctors but also nursing workers who contributed a low attitude score from the perspective of proportion. It is understandable that they had a lower hospice care knowledge score, which may result in a moderate attitude toward hospice care. Moreover, the Guangxi Zhuang autonomous region is located in the southern part of China, which is a place with the largest number of Zhuang people, and the Zhuang people are also the largest ethnic minority in China. Their localized culture of life and death and Chinese Confucian concept of "filial

**Table 3** The Results of the Multiple Linear Regression Analysis of the Influencing Factors of Hospice Care Attitudes

Independent Variable	B	SE	$\beta$	t	p
Constant	20.530	0.805	–	25.494	< 0.001
Monthly income	0.668	0.166	0.100	4.037	< 0.001
Satisfaction with the intensity of the work	0.638	0.148	0.102	4.303	< 0.001
Whether Hospice care system and supervision need to be improved	1.151	0.165	0.165	6.960	< 0.001

**Notes:** 95% CI,  $R^2 = 0.051$ ,  $F = 18.594$ ,  $p < 0.001$ .



piety” are deeply rooted in their ideology, which leads to less receptiveness to hospice care. Therefore, the relevant departments should actively combine the customs of living and mourning with regional characteristics to carry out death education, promote changes in ideas, strengthen training, and improve public awareness of hospice care.<sup>38–40</sup>

Moreover, we find that monthly income, job satisfaction and the HCS were common influences on HCPs’ knowledge and attitudes. A higher monthly income corresponds to higher K&A scores. Generally, most high-income practitioners have high-level professional titles, high academic qualifications, and long seniority; they need to actively undertake hospice care support work and take on teaching tasks, which require constant learning and keeping abreast of current hospice care knowledge<sup>41</sup> which suggests that working experience, a high level of education and a good professional identity promote the practices of hospice care. In addition, this may also be related to the salary incentive factor. The practitioners with higher income had a more positive attitude and motivation to participate in the work, which suggests that hospice care institutions and relevant governments should implement incentive policies and provide appropriate salary subsidies. The majority of participants also indicated that hospice care workers are prone to occupational grief, which leads to a decrease in their job satisfaction. Mental health is an urgent issue that should be addressed to encourage HCPs to practice hospice care. We often focus on the grief of patients and their families but neglect HCPs’ grief counseling. Thus, it is necessary to establish a grief counseling department specifically for HCPs to alleviate their psychological stress. In addition, employee job satisfaction is a true measure of management in hospice care institutions. In our research, individuals who expressed a great satisfaction with the department and willingness to improve the work system had higher K&A scores. These findings should be the focus of leaders and managers of hospice care institutions. Practitioner-oriented management and introducing effective improvement measures that employees consider important can augment the loyalty, sense of belonging, and self-efficiency of all practitioners and enhance organizational cohesion.<sup>42</sup> The formulation of the HCS is affected by many factors and requires much practice and data, and research on hospice care still needs to be carried out.<sup>43,44</sup> In 2018, the American Academy of Hospice and Palliative Medicine drafted The Palliative Care and Hospice Education and Training Act (PCHETA), intending to significantly increase interdisciplinary education and training opportunities in hospice and palliative medicine, including the construction of new education centers and increased career incentives for physicians, nurse practitioners, physician assistants, social workers, and healthcare-related professionals. China’s hospice service model with local characteristics is still being explored. However, we can learn from the successful experiences in foreign countries and the studies and practices conducted in China to continuously improve the local hospice care system and policies.

## Strengths and Limitations

The strengths of our study include the large sample size and the examination of a wide range of possible correlations, which may enhance the generalization of our findings. However, this study was only conducted in Guangxi, China; hence, these results cannot be generalized to hospice care practitioners in other regions, especially in developed regions. Moreover, although the results were valid, there may be other factors that affected participants’ knowledge and attitudes. Further research is needed to explore these issues.

## Conclusion

The hospice care practitioners displayed moderate mean scores for knowledge and a less favorable attitude toward hospice care. Hospice care training in Guangxi has been uneven, and attention should be given to strengthening professional training for HCPs. Furthermore, publicity departments should actively combine the customs of living and mourning with regional characteristics to conduct life education and improve public awareness of hospice care. Monthly income, job satisfaction and HCS were the common factors that influenced hospice care practitioners’ knowledge and attitudes. The government and relevant health departments should focus on increasing HCPs’ welfare and benefits and, most importantly, improving indigenous standards, management norms and laws to develop a blueprint for improving hospice care services in the context of global rapid aging.

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## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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## Disclosure

The authors report no conflicts of interest in this work.

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