

http://ojs.bbwpublisher.com/index.php/JCNR

Online ISSN: 2208-3693 Print ISSN: 2208-3685

# Analysis of Cognitive Differences and Influencing Factors of Traditional Chinese Medicine Culture in Rural Areas

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Abstract: This article compares the cognitive differences and influencing factors of traditional Chinese medicine culture among rural residents in Guigang, Guangxi, and Jinhua, Zhejiang, providing a reference for balanced development. A stratified sampling method was used to conduct a questionnaire survey in three townships in each region, and data were analyzed using SPSS 25.0 and chi-square test. The survey shows that residents in Guigang rely more on personal experience for their understanding, resulting in fragmented cognition, with their needs concentrated on disease treatment. On the other hand, residents in Jinhua rely on rational trust and digital communication, leading to deeper cognition, and their needs tend to focus on preventive healthcare. Occupational factors significantly affect the cognitive level in Jinhua, while in Guigang, it is closely related to trust and cultural atmosphere. The interaction of regional economy, occupational background, and cultural tradition affects cognitive differences. It is suggested that Guigang should build a community traditional Chinese medicine cultural experience matrix, develop digital content for ethnic medical resources, and strengthen the "experience-identification-dissemination" closed loop. Jinhua should deepen the construction of digital IP and promote the integration of industry and education. The two regions should jointly build a cross-regional cultural corridor, cultivate inheritors, and use new media to expand the coverage of dissemination.

Keywords: Traditional Chinese medicine culture; Influencing factors; Cognitive differences

Online publication: July 8, 2025

## 1. Introduction

The cognition of traditional Chinese medicine culture is an important dimension to measure residents' health literacy, involving the understanding and application of traditional Chinese medicine healthy lifestyle and cultural knowledge <sup>[1]</sup>. In recent years, the "Healthy China 2030" Planning Outline and the "14th Five-Year Plan" for the Development of Traditional Chinese Medicine have emphasized the improvement of traditional Chinese medicine service capabilities and citizens' health and cultural literacy <sup>[2, 3]</sup>. As a crucial position for the inheritance

of traditional Chinese medicine culture, rural areas' residents' cognitive level directly affects the accessibility and effectiveness of services. However, differences in regional economies and cultural backgrounds may lead to cognitive differentiation, and targeted research is urgently needed to promote balanced development. This study selects rural residents from Guigang, Guangxi, and Jinhua, Zhejiang as subjects, compares the differences in cognition, attitudes, and needs of traditional Chinese medicine culture between the two regions, and deeply analyzes the influencing factors. The research aims to reveal the influence mechanism of regional differences on the dissemination of traditional Chinese medicine culture, provide a theoretical basis for formulating differentiated policies and promoting the balanced development of traditional Chinese medicine culture, and actively respond to the call of the national rural revitalization strategy to enhance primary health service capabilities [4].

## 2. Research methods

The study adopted and revised the questionnaire used in the research "Problems and Countermeasures of the Current Situation of Traditional Chinese Medicine Cultural Cognition and Demand of Rural Residents in Lingnan" conducted by Zhang *et al*, based on specific circumstances <sup>[5]</sup>. The questionnaire included basic information, attitudes towards traditional Chinese medicine, cognitive level, and demand evaluation. A stratified multi-stage random sampling method was used to select 3 townships in Guigang and Jinhua each. Through a random number table method, 4 administrative villages were selected from each township, and 30–35 households were randomly selected from each village for the questionnaire survey. The collected data were verified using Excel, and 11 questionnaires with a missing rate of key variables greater than 20% or contradictory answers were excluded. The SPSS 25.0 complex sampling module was used for analysis, and differences between the two locations were compared using the chi-square test.

#### 3. Research results

### 3.1. Basic information of survey respondents

This study conducted research in the villages of Guigang, Guangxi, and Jinhua, Zhejiang, distributing 690 questionnaires and collecting 679 valid questionnaires, with an effective recovery rate of 98.41%. The basic information of the survey respondents is shown in **Table 1**. In terms of gender, the distribution in Guigang was balanced, while there were slightly more women in Jinhua. Regarding age, Guigang respondents were mainly aged 46 and above, while Jinhua respondents were predominantly between 18 and 35 years old. In terms of education level, Guigang had a high proportion of respondents with primary and junior high school education, while Jinhua had a significantly higher proportion of respondents with college education and above compared to Guigang. Occupation-wise, farmers and workers accounted for 52.89% in Guigang, while students and teachers were more prominent in Jinhua. The proportion of other occupations was relatively balanced in both locations. In terms of annual income, Guigang had a high proportion of respondents earning below 30,000 and between 30,000 to 50,000, while Jinhua had a similar proportion of respondents earning between 50,000 to 100,000 as Guigang.

Table 1. Basic demographic characteristics of survey respondents on tem culture awareness

Survey item	Category	Guigang (n)	Jinhua (n)	Guigang (%)	Jinhua (%)	
Gender	Male	167	159	50.76	45.43	
	Female	162	191	49.24	54.57	
	< 18 years	107	34	32.52	9.71	
A	18–35 years	56	174	17.02	49.71	
Age	36–45 years	51	100	15.50	28.57	
	≥ 46 years	115	42	34.95	12.00	
	Primary school or below	69	25	20.97	7.14	
P1 2 1 1	Junior high school	100	70	30.40	20.00	
Education level	High school/technical school	98	109	29.79	31.14	
	College or above	62	146	18.84	41.71	
	Farmers/Workers	174	105	52.89	30.00	
	Teachers	14	49	4.26	14.00	
Occupation	Healthcare workers	53	41	16.11	11.71	
	Students	36	100	10.94	28.57	
	Others	52	55	15.81	15.71	
	<\\\\30,000	126	116	38.30	33.14	
A 1.	¥30,000-50,000	102	56	31.00	16.00	
Annual income	¥50,000-100,000	57	116	17.33	33.14	
	≥¥100,000	44	62	13.37	17.71	

### 3.2. Cognition, attitude, and demand for traditional Chinese medicine

The level of cognition of traditional Chinese medicine directly affects residents' attitudes towards it, which in turn determines their demand and behavior choices <sup>[6]</sup>. The trust in traditional Chinese medicine was similar in both locations, but in terms of willingness to try traditional Chinese medicine treatment, 41.03% of Guigang respondents were willing, significantly higher than the 19.71% in Jinhua. Among the main reasons for choosing traditional Chinese medicine treatment, 71.12% of Guigang respondents chose "affordable price," higher than the 41.43% in Jinhua. Among the reasons for not choosing traditional Chinese medicine, Guigang residents believed that decocting medicine was inconvenient, while Jinhua residents tended to think that it was difficult to find a good traditional Chinese medicine practitioner. The proportion of people familiar with traditional Chinese medicine culture was 34.95% in Guigang and only 10.57% in Jinhua. Jinhua residents believed that the cognition of traditional Chinese medicine culture was "average," accounting for 44.00%, higher than the 14.29% in Guigang.

The evaluation of medical treatment status and cultural atmosphere perception of traditional Chinese medicine was similar in both locations. Residents in both places generally believed that limited funding and a shortage of grassroots practitioners were the main issues for the development of traditional Chinese medicine. However, 55.32% of Guigang residents believed that there was a lack of policy support, much higher than the 32.86% in Jinhua. Regarding channels for obtaining information about traditional Chinese medicine, Jinhua residents preferred "recommendations from friends and family" and "obtaining information from newspapers and the internet," while

Guigang residents relied more on personal experience. There were significant differences in the demand for traditional Chinese medicine services between the two locations. Guigang residents had a higher demand for medical services targeting disease treatment, while Jinhua residents had a stronger demand for related preventive health services.

Table 2. Survey on attitudes, knowledge level, and demand for traditional Chinese medicine (TCM) culture

Survey content	Category	Guigang (n)	Jinhua (n)	Guigang (%)	Jinhua (%)
	Trust	143	165	43.47	47.14
Attitude toward TCM	Neutral	Trust 143 165 43.47 47.14  Neutral 33 93 10.03 26.57  Skeptical 115 70 34.95 20.00  Distrust 38 22 11.55 6.29  ery willing 117 159 35.56 45.43  Willing 135 69 41.03 19.71  ay consider 42 76 12.77 21.71  Unwilling 35 46 10.64 13.14  Fordable cost 234 145 71.12 41.43  ery, fewer side effects 234 225 71.12 64.29  motes health 225 151 68.39 43.14  post-illness recovery 128 109 38.91 31.14  ort without clear diagnosis 146 144 44.38 41.14  mient preparation 224 192 68.09 54.86  eleasant taste 107 34 32.52 9.71  ng skilled TCM doctors 196 239 59.57 68.29  derstanding of TCM 126 96 38.30 27.43  ed ineffectiveness 112 172 34.04 49.14  h preservation 211 168 64.13 48.00  eer treatment 162 153 49.24 43.71  of difficult diseases 152 133 46.20 38.00  disease management 213 181 64.74 51.71	26.57		
Attitude toward TCM	Skeptical	115	70	34.95	20.00
	Distrust	38	22	11.55	6.29
	Very willing	117	159	35.56	45.43
Willingness to try	Willing	135	69	41.03	19.71
TCM treatment	May consider	42	76	43.47       47.14         10.03       26.57         34.95       20.00         11.55       6.29         35.56       45.43         41.03       19.71         12.77       21.71         10.64       13.14         71.12       41.43         71.12       64.29         68.39       43.14         38.91       31.14         44.38       41.14         68.09       54.86         53.80       35.14         32.52       9.71         59.57       68.29         38.30       27.43         34.04       49.14         64.13       48.00         49.24       43.71         46.20       38.00         45.29       38.29	
	Unwilling	35	46	10.64	13.14
	Affordable cost	234	145	71.12	41.43
	Stable efficacy, fewer side effects	234	145     71.12     41.43       225     71.12     64.29       151     68.39     43.14       109     38.91     31.14       144     44.38     41.14       192     68.09     54.86       123     53.80     35.14       34     32.52     9.71       239     59.57     68.29       96     38.30     27.43	64.29	
Reasons for choosing TCM	Promotes health	225	151	68.39	43.14
10111	Needed for post-illness recovery	128	109	43.47       47.14         10.03       26.57         34.95       20.00         11.55       6.29         35.56       45.43         41.03       19.71         12.77       21.71         10.64       13.14         71.12       64.29         68.39       43.14         38.91       31.14         44.38       41.14         68.09       54.86         53.80       35.14         32.52       9.71         59.57       68.29         38.30       27.43         34.04       49.14         64.13       48.00         49.24       43.71         46.20       38.00         45.29       38.29         64.74       51.71         35.26       45.14         34.95       10.57         39.21       40.00         14.29       44.00         11.55       5.43         37.39       35.71	
	Physical discomfort without clear diagnosis	146	144	44.38	41.14
	Inconvenient preparation	224	192	68.09	54.86
	Slow effect	177	123	53.80	35.14
Reasons for not	Unpleasant taste	107	34	32.52	9.71
choosing TCM Difficulty finding skilled TCM doctors 196 239 59.57  Lack of understanding of TCM 126 96 38.30  Perceived ineffectiveness 112 172 34.04	Difficulty finding skilled TCM doctors	196	239	59.57	68.29
	38.30	27.43			
	Perceived ineffectiveness	derstanding of TCM 126 96 38.30 2 ed ineffectiveness 112 172 34.04 4	49.14		
	Health preservation	211	168	64.13	48.00
	Cancer treatment	162	159       35.56       45.43         69       41.03       19.71         76       12.77       21.71         46       10.64       13.14         145       71.12       41.43         225       71.12       64.29         151       68.39       43.14         109       38.91       31.14         144       44.38       41.14         192       68.09       54.86         123       53.80       35.14         34       32.52       9.71         239       59.57       68.29         96       38.30       27.43         172       34.04       49.14         168       64.13       48.00         153       49.24       43.71         133       46.20       38.00         134       45.29       38.29         181       64.74       51.71         158       35.26       45.14         37       34.95       10.57         140       39.21       40.00         154       14.29       44.00         19       11.55       5.43         125       37.39	43.71	
Perceived most	Treatment of difficult diseases	152	133	46.20	38.00
effective TCM applications	Rehabilitation therapy	149	134	45.29	38.29
	Chronic disease management	213	181	11.55       6.29         35.56       45.43         41.03       19.71         12.77       21.71         10.64       13.14         71.12       41.43         71.12       64.29         68.39       43.14         38.91       31.14         44.38       41.14         68.09       54.86         53.80       35.14         32.52       9.71         59.57       68.29         38.30       27.43         34.04       49.14         64.13       48.00         49.24       43.71         46.20       38.00         45.29       38.29         64.74       51.71         35.26       45.14         34.95       10.57         39.21       40.00         14.29       44.00         11.55       5.43         37.39       35.71         38.91       32.57         12.77       20.57	
	Emergency care	116	158	35.56       45.43         41.03       19.71         12.77       21.71         10.64       13.14         71.12       41.43         71.12       64.29         68.39       43.14         38.91       31.14         44.38       41.14         68.09       54.86         53.80       35.14         32.52       9.71         59.57       68.29         38.30       27.43         34.04       49.14         64.13       48.00         49.24       43.71         46.20       38.00         45.29       38.29         64.74       51.71         35.26       45.14         34.95       10.57         39.21       40.00         14.29       44.00         11.55       5.43         37.39       35.71         38.91       32.57         12.77       20.57         10.94       5.71	
	Familiar	115	37	34.95	10.57
Awareness of TCM	Somewhat familiar	129	140	39.21	40.00
culture	Neutral	47	154	14.29	44.00
	Unfamiliar	38	19	11.55	5.43
	Convenient	123	125	37.39	35.71
	Moderate	128	114	38.91	32.57
Accessibility of TCM services	Somewhat inconvenient			20.57	
301,1000	Inconvenient	36	20	10.94	5.71
	(Skipped)	0	19	0.00	5.43

**Table 2 (Continued)** 

Survey content	Category	Guigang (n)	Jinhua (n)	Guigang (%)	Jinhua (%)
	Very strong	69	87	20.97	24.86
	Relatively strong	93	116	28.27	33.14
Local TCM cultural atmosphere	Neutral	112	55	34.04	15.71
штогриеге	Relatively weak	34	43	28.27       33.1         34.04       15.7         10.33       12.2         6.38       14.0         62.01       59.7         55.32       32.8         36.78       35.1         45.29       45.7         54.10       53.1         44.38       46.8         18.24       1.1         34.04       21.1         40.12       54.5         17.63       15.7         8.21       8.5         63.22       41.4         52.58       69.1         39.82       38.0	12.29
	Very weak	21	49	6.38	14.00
	Limited funding	204	209	62.01	59.71
	Insufficient policy support	182	115	55.32	32.86
	Lagging IT infrastructure	121	123	36.78	35.14
Challenges in local TCM development	Inadequate promotion	149	160	45.29	45.71
Tent de verepment	Shortage of grassroots TCM practitioners	178	164 44.38 46	53.14	
	Weak application of TCM techniques	146	164	44.38	46.86
	No issues	60	4	18.24	1.14
	Actively follow	112	74	34.04	21.14
Frequency of	Occasionally follow	132	191	40.12	54.57
Frequency of following TCM culture Rarely follow 58 55 1	17.63	15.71			
	Never follow	27	30	8.21	8.57
	Personal experience	208	145	63.22	41.43
	Recommendations from friends/family	173	242	52.58	69.14
Channels for learning	Recommendations from Western doctors	131	133	39.82	38.00
about TCM	Health lectures	135	116	41.03	33.14
	TV, radio, internet, newspapers	166	177	50.46	18.24     1.14       34.04     21.14       40.12     54.57       17.63     15.71       8.21     8.57       63.22     41.43       52.58     69.14       39.82     38.00       41.03     33.14
	Other	123	10	37.39	2.86
	Disease treatment services	214	159	65.05	45.43
Most desired local	lesired local Post-illness rehabilitation 195 201	201	59.27	57.43	
TCM services	Family healthcare	131	171	59.27     57.43       39.82     48.86	
	Preventive healthcare	184	223	55.93	63.71
Overall knowledge level	High	53	52	16.11	14.86

# 3.3. Key factors influencing cognitive level

Surveys in both regions indicate that the stronger the local cultural atmosphere of traditional Chinese medicine (TCM), and the higher the residents' attention to TCM, the higher their cognitive level of TCM will be. Occupation is an important factor influencing the cognitive level of TCM culture among residents in Jinhua ( $X^2$ =9.649, P=0.047). The cognitive level of students, teachers, and health service professionals is significantly higher than that of farmers and workers. In Guigang, residents' trust in TCM is positively correlated with their cognitive level ( $X^2$ =31.912, P < 0.001), and residents who trust TCM are more likely to actively understand and learn about TCM culture. The cognitive level of residents in Guigang is also affected by their familiarity with TCM culture ( $X^2$ =27.400, P < 0.001) and the convenience of local TCM medical services ( $X^2$ =8.048, Y=0.090).

Table 3. Influence of various factors on residents' awareness level in Guangxi and Zhejiang

Survey content	Category	Guigang awareness level		Guigang X <sup>2</sup>		Jinhua awareness level		Jinhua	Jinhua
		Low	High	(%)	(%)	High	Low	$X^{2}$ (%)	P(%)
Age	18–30	49	7	1.020		28	146	2.044	
	31–45	41	10		0.706	3	31		0.560
	< 18	90	17		0.796	13	87		0.563
	≥ 46	96	19			8	34		
Education	High school/ technical school	88	10	7.261	0.064	27	119	4.701	0.195
	College or above	48	14			11	98		
	Primary school or below	61	8			12	58		
	Middle school	79	21			2	23		
	Farmers/ workers	149	25		0.092	17	83	9.649	
Occupation	Healthcare- related	48	5			16	89		0.047
	Students	30	6	7.996		12	43		
	Others	40	12			7	42		
	Teachers	9	5			0	41		
	30,000–50,000	89	13	2.632	0.452	18	98	2.319	0.509
Annual	50,000-100,000	49	8			9	47		
income (CNY)	< 30,000	104	22			12	50		
(0111)	≥ 100,000	34	10			13	103		
Attitude	Neutral	105	10	28.067	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	23	142	1.134	0.769
	Trusting	103	40			11	59		
toward TCM	Skeptical	30	3			16	77		
	Distrustful	38	0						
	Familiar	81	34	31.912		10	27	6.744	0.081
Awareness of	Basic understanding	110	19		0.000	15	125		
TCM culture	Average	47	0			25	129		
	Unfamiliar	38	0			2	17		
	Convenient	88	35	27.400	24 90				
Local TCM	Moderate	111	17			24	90	8.048	0.090
healthcare	Less convenient	41	1			11	61		
accessibility	Inconvenient	36	0			0	20		
	Skipped	0	0			2	17		
	Moderate	101	11	18.770	0.001	17	38	14.040	0.007
Local TCM	Relatively strong	70	23			15	101		
cultural	Relatively weak	32	2			8	79		
atmosphere	Very weak	21	0			6	37		
_	Very strong	52	17			6	43		
Proactive attention to TCM information	Occasionally	115	17	22.099	0.000	36	155		0.035
	Rarely	55	3			8	47		
	Frequently	80	32			8	66	8.602	
	Never	26	1			0	30		

Note: p represents the significance level;  $p \le 0.05$  indicates a statistically significant influence.

### 4. Discussion

# 4.1. Occupation as a sculpting tool for cognitive differences

Occupation plays a significant role in an individual's social role system and has a notable impact on cognitive differences in TCM culture <sup>[6]</sup>. Different occupational groups, influenced by factors such as knowledge structure, work environment, and lifestyle, have varying degrees of exposure to and understanding of TCM culture. Research shows that occupation is a crucial factor affecting the cognitive level of TCM culture among residents in Jinhua, which is consistent with the research of Juxi and others <sup>[7,8]</sup>. The influence of occupational factors on cognition is not a simple linear relationship but is modulated by both regional cultural background and economic development. Due to Jinhua's developed economy and abundant educational resources, occupational differences have a significant impact on cognitive levels. However, in Guigang, where the economy is relatively lagging, the influence of occupational differences is overshadowed by economic and educational factors <sup>[9-11]</sup>. It is recommended that Guigang enhance its educational level and strengthen publicity to narrow the cognitive gap among occupational groups.

Occupational factors exhibit significant stratification characteristics for age differences in the cognition of TCM culture. Among younger groups, the influence of occupation on cognitive level is relatively weakened, and cognitive differences mainly stem from exposure to digital communication. For middle-aged and older groups, the key variable is occupational background. There is a significant difference in cognitive scores between agricultural workers and teachers, which is closely related to their knowledge acquisition channels. The former relies more on traditional experience accumulation, while the latter gains access to standardized training through professional characteristics. This intergenerational difference arises because young people have strong cognitive plasticity and can actively break through professional field limitations.

However, middle-aged and older groups are affected by knowledge solidification effects, making it difficult to reconstruct the cognitive framework shaped by the professional environment. It is suggested to build an age-stratified intervention system: develop immersive learning scenarios such as metaverse interactive courses and digital twin communities of TCM culture for young people, and implement occupational scene-embedded education for middle-aged and older groups, creating community TCM health workshops for retired employees. Simultaneously, a cross-generational communication mechanism should be established to promote intergenerational cognitive transmission through family digital feedback.

# 4.2. Attitude towards traditional Chinese medicine (TCM) serves as a dynamic compass for measuring cognitive levels

The influence of attitudes towards TCM on cognitive levels is both dynamic and multidimensional, with "rational trust" and "experience-dependent trust" emerging as typical patterns. Rational trust is formed through logical analysis and information screening based on the recognition of the scientific and systematic nature of TCM. Conversely, experience-dependent trust relies on personal experience or traditional inertia and lacks systematic cognition <sup>[9]</sup>. Residents of Jinhua exhibit a high level of recognition for the efficacy of TCM, particularly in terms of "TCM health maintenance" and "chronic disease treatment". They tend to acquire knowledge through systematic channels such as health lectures, demonstrating characteristics of "rational trust", and are able to actively screen information to form deep cognition.

On the other hand, residents of Guigang mostly hold an "experience-dependent trust" attitude towards TCM, relying on personal experience and traditional inertia, resulting in fragmented cognition. This aligns with the theory of "information acquisition mode determining cognitive structure" and reveals the moderating effect of

attitude motivation on information screening <sup>[12]</sup>. In-depth interviews reveal that while the experience-led cognitive pathway has a high emotional identification, some highly trusting groups actually have a vague understanding of concepts such as "appropriate TCM techniques", and blind trust inhibits the development of critical cognition. Rational trust improves cognitive quality through a process of "trust-doubt-recognition", whereas experience-dependent trust remains at a superficial level due to the lack of systematic support <sup>[13]</sup>. It is suggested that Guigang learn from Jinhua's experience and integrate evidence-based medicine concepts into TCM promotion to facilitate a shift from "experience-dependent" to "rational trust" among residents. Leveraging its advantage in rational trust, Jinhua can establish a digital science popularization platform to strengthen residents' deep cognition of TCM and promote the transformation of TCM culture.

# 4.3. Cultural atmosphere and attention serve as fertile soil for enhancing cognition

Traditional viewpoints suggest that cultural atmosphere enhances attention and strengthens cognition through exposure to various scenarios. However, in the digital era, research indicates a dynamic interaction between cultural atmosphere and attention, which jointly affects cognitive levels through a two-way mechanism of "cultural identity-information reach", presenting differentiated pathways in different regions [14, 15]. Jinhua, with a strong cultural atmosphere stemming from historical accumulation, actively utilizes new media platforms to reconstruct TCM cultural symbols. For instance, by creating IPs such as "TCM health bloggers" and transforming traditional medicinal diet preparation into interesting short videos, it achieves integrated online and offline communication, breaking geographical limitations. Conversely, residents of Guigang rely heavily on personal experience, lacking digital recording and dissemination, which confines the cultural atmosphere to individual perception, making it difficult to form group identity and leading to a dilemma of "high experience, low diffusion" [12].

The level of attention is not only determined by the amount of information provided, but is also closely related to the degree of cultural identity among residents. The stronger the atmosphere of traditional Chinese medicine culture, the higher the residents' attention and cognitive level. Residents of Jinhua have a high cultural identity, are sensitive to relevant information, and actively pay attention to it. Residents of Guigang often act out of practical needs, lack cultural identity, and their attention is characterized by passiveness and fragmentation. When individuals view traditional Chinese medicine culture as part of their cultural identity, they spontaneously strengthen their attention behavior [16]. The key to increasing attention lies in fostering cultural identity, not simply increasing the frequency of promotion. Jinhua should leverage its digital advantages and could collaborate with universities and medical institutions to develop AR traditional Chinese medicine diagnosis and treatment simulation programs, promoting the transformation of traditional Chinese medicine culture from a "traditional resource" to a "cultural capital". Guigang needs to focus on the closed-loop construction of the "experience-identity-dissemination" chain, encouraging residents to record and share their own cases of traditional Chinese medicine application, forming localized cultural symbols, and gradually building group identity.

# 4.4. Public demands are the guiding beacon for the development of traditional Chinese medicine

The dynamic evolution of the supply and demand relationship of traditional Chinese medicine services reveals a two-way driving mechanism of "demand stratification - supply iteration". On one hand, the stratification of public demand guides supply optimization; on the other hand, supply optimization in turn shapes demand upgrading, that is, "supply and demand coordination", revealing the dynamic interaction mechanism between the two. There are

significant differences in the demand for traditional Chinese medicine services between residents of Guigang and Jinhua, reflecting the regional characteristics of demand stratification. Due to the low level of economic development and scarcity of medical resources in Guigang, residents are more concerned with disease treatment, and their demand remains at the level of "treating diseases". Residents in Jinhua tend to prefer preventive health care services, and their demand has shifted from "treating diseases" to "preventing diseases", which is in line with the concept of "health-centered". It is recommended to establish a demand response index system to dynamically monitor the supply and demand matching degree of traditional Chinese medicine services in different economic development areas, and achieve a benign resonance between supply innovation and demand upgrading through precise policies.

Demand stratification is influenced by multiple factors such as regional economy, culture, and policies, and transitions with changes in external conditions. Supply optimization is the key to meeting public demands and guiding demand upgrading. Jinhua promotes services such as TCM constitution identification, cultivates residents' health management awareness, and drives demand transformation. Guigang's limited supply capacity and long-term stagnation of demand indicate that the core of supply optimization lies in "precise matching" and "forward-looking guidance". Guigang should strengthen primary-level traditional Chinese medicine service capabilities, carry out traditional Chinese medicine cultural experience activities, enhance residents' cognitive level and cultural identity, cultivate talents, and then carry out preventive health care pilots to cultivate health awareness. Jinhua needs to deepen the supply of preventive health care services, deepen the "traditional Chinese medicine + health management" model, and promote cultural dissemination.

# 5. Conclusion

This study compared the differences in cultural cognition of traditional Chinese medicine (TCM) among rural residents in Guigang, Guangxi, and Jinhua, Zhejiang. The findings revealed significant interactions between regional economic levels, occupational backgrounds, and cultural traditions. Residents in Guigang relied heavily on personal experience, demonstrating "experience-dependent trust" with fragmented cognition, and their demands were concentrated on disease treatment. Conversely, residents in Jinhua relied on rational trust and digital communication, exhibiting more systematic and deeper cognition, with a preference for preventive healthcare. Occupational factors significantly influenced cognition in Jinhua, while enhancing trust in TCM and optimizing the convenience of primary TCM healthcare services were identified as breakthrough points for improving cognition in Guigang. It is suggested that Guigang should strengthen the clinical application of TCM at the primary level, utilize digitalization to promote cultural dissemination, and enhance residents' cognitive level of TCM culture. Jinhua, on the other hand, should leverage its cultural heritage, deepen the "TCM + Health Management" model, and lead the transition of demand from "disease treatment" to "disease prevention." Both regions also need to improve talent cultivation and funding mechanisms. The balanced development of cultural cognition of TCM is significant for enhancing residents'health literacy, promoting rural revitalization, and advancing the Healthy China strategy. Future research can expand the dimensions of regional comparison, explore innovative digitalization pathways, promote the vitality of TCM in inheritance, and contribute the wisdom of TCM to building a global community of health for all.

### Disclosure statement

The authors declare no conflict of interest.

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