

# Research on the Employment View of Acupuncture and Tuina Undergraduates in Minority Border Areas from Students' Perspective

Rongshuang Yang, Kai Yuan, Minjie Yin, Ruilu Liu, Zhihao Zhang, Lijuan Wang, Yanfang Yang, Xinghe Zhang\*

The Second Clinical Medical College of Yunnan University of Chinese Medicine, Kunming 650500, Yunnan Province, China

\*Corresponding author: Xinghe Zhang, doczhangxh@163.com

**Copyright:** © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** With the popularization of higher education in China, the employment situation of college students is more complex and severe. This paper adopts the questionnaire method to explore the employment view of acupuncture and tuina undergraduates of Yunnan University of Traditional Chinese Medicine. The employment concept of acupuncture and tuina undergraduates in the minority border areas has changed greatly. After graduation, 97.95% of students choose to work in fields related to medicine and acupuncture, prefer positions close to home, and are attracted to high-salary companies, among other factors. Therefore, enhancing the competitive advantages of medical students by guiding their career planning, providing employment selection advice, fostering innovation and entrepreneurship, improving basic skills, and offering graduate entrance examination guidance is crucial for broadening their employment opportunities.

**Keywords:** Undergraduate; Employment; Minority border areas; Acupuncture and tuina

**Online publication:** August 27, 2024

## 1. Introduction

With the continuous development of the social economy and the popularization of higher education, acupuncture and tuina have received increased attention, mainly reflected in the continuous expansion of the enrollment of Acupuncture and Tuina Traditional Chinese medicine schools. However, with the increase in the number of acupuncture and tuina professionals, the employment situation of college students has become more complicated and the situation of postgraduate examinations has become more severe<sup>[1]</sup>.

Graduates in border areas are an important source of talent for the construction of border medical undertakings and an essential force for economic and social development and social stability in border areas. Through research on the employment views of acupuncture and tuina undergraduates, this paper discusses the challenges present in their employment perspectives. The aim is to help students establish correct employment

views, achieve higher quality employment, and promote job opportunities for college students in minority border areas. This has significant implications for local economic and social development, as well as for maintaining social stability <sup>[2]</sup>.

## **2. Data source and methods**

### **2.1. Data source**

The questionnaire survey was distributed to 734 undergraduates majoring in acupuncture and tuina at Yunnan University of Traditional Chinese Medicine.

### **2.2. Study methods**

WeChat Questionnaire Star was used to design the online questionnaire. The questionnaire was pushed to each undergraduate class of acupuncture and tuina through the class group on WeChat. The questionnaire was divided into three major parts, totaling 14 questions.

The first part involves employment choice: The choice of employment or postgraduate entrance examination; the reasons for choosing postgraduate entrance examination; and the reasons for choosing employment.

The second part is employment expectation: View of employment situation; understanding of employment rate and relationship with academic qualifications; understanding of competitive pressure; understanding of salary; understanding of work pressure; choice of employment major; selection of employment area; selection of employment units; and methods to handle employment.

The third part includes the planning of the postgraduate entrance examination: Selection of target colleges for the postgraduate entrance examination; and selection of professional degree or academic degree for the postgraduate entrance examination.

### **2.3. Quality control**

The content of the questionnaire was explained to the respondents to ensure that they had a correct understanding of the survey content. Before the formal distribution of the questionnaire, a small pre-survey was conducted to identify and correct any issues in the questionnaire. The investigator then distributed the questionnaire to respondents via the Internet, allowing them to submit their responses anonymously. The questionnaire system automatically recorded the data upon submission <sup>[3]</sup>.

## **3. Results analysis**

A total of 488 valid questionnaires were collected from the respondents, with a recovery rate of 66.49%. Among them, the first grade had 32 (recovery 20.51%), the second grade had 53 (recovery 49.07%), the third grade had 108 (recovery 85.71%), the fourth grade had 165 (recovery 94.83%), and the fifth grade had 130 (recovery 76.47%).

### **3.1. Employment choice**

As shown in **Table 1**, 70.50% of students choose to take the postgraduate entrance examination after graduation, and most of them tend to continue to study the major of acupuncture and tuina. There are 27.46% of students who choose direct employment after graduation, while a few students are uncertain about their choice. Most undergraduates majoring in acupuncture and tuina have a clear direction and goal for their future after graduation.

**Table 1.** Choice of employment or postgraduate entrance examination [*n* (%)]

Grade	Acupuncture and tuina field	Other fields	Direct employment	Uncertain
First	12 (37.50)	2 (6.25)	18 (56.25)	0 (0)
Second	26 (49.06)	6 (11.32)	20 (37.74)	1 (1.89)
Third	58 (53.70)	6 (5.56)	40 (37.04)	4 (3.70)
Fourth	100 (60.61)	22 (13.33)	40 (24.24)	3 (1.82)
Fifth	100 (76.92)	12 (9.23)	16 (12.31)	2 (1.54)
Total	296 (60.66)	48 (9.84)	134 (27.46)	10 (2.05)

As shown in **Table 2**, the main reasons for students who choose direct employment are that they want to reduce their family burden as soon as possible and lack interest in postgraduate entrance examinations. However, long postgraduate time is less considered as the reason.

**Table 2.** Reasons for choosing employment [*n* (%)]

Grade	Reducing family burden	Lack of interest in postgraduate entrance examinations	Lack of confidence in postgraduate entrance examinations	Long postgraduate time
First	16 (50.00)	8 (25.00)	5 (15.63)	3 (9.38)
Second	28 (52.83)	10 (18.87)	10 (18.87)	5 (9.43)
Third	52 (48.15)	14 (12.96)	31 (28.70)	11 (10.19)
Fourth	75 (45.45)	55 (33.33)	23 (13.94)	12 (7.27)
Fifth	54 (41.54)	60 (46.15)	6 (4.62)	10 (7.69)
Total	225 (46.11)	147 (30.12)	75 (15.37)	41 (8.40)

As shown in **Table 3**, the most important factor for students to choose the postgraduate entrance examination is to obtain better employment opportunities, followed by further study, and to receive standardized training. It can be seen that students' motivation for the postgraduate entrance examination is more rational. From the perspective of different grades, the primary reasons for lower-grade students choosing the postgraduate entrance examination are employment pressure and postgraduate entrance examination, while higher-grade students choose the postgraduate entrance examination due to the "5 + 3" medical education mode.

**Table 3.** Reasons for choosing the postgraduate entrance examination [*n* (%)]

Grade	Better employment opportunities	Further study	Standardized training	Following the trend
First	8 (25.00)	10 (32.15)	14 (43.75)	0 (0)
Second	25 (47.17)	19 (35.85)	9 (16.98)	0 (0)
Third	57 (52.78)	34 (31.48)	15 (13.89)	2 (1.85)
Fourth	88 (53.33)	62 (37.58)	14 (8.48)	1 (0.61)
Fifth	86 (66.15)	42 (32.31)	2 (1.54)	0 (0)
Total	264 (54.10)	167 (34.22)	54 (11.07)	3 (0.61)

### 3.2. Employment expectations

As shown in **Table 4**, there are 46.93% of students who are concerned about the current employment situation, and 53.07% who are optimistic and confident. From different grades, first-grade graduates are generally worried about their employment situation; among other graduates, higher-grade students are more confident about their employment situation.

**Table 4.** Awareness of the employment situation [*n* (%)]

Grade	Confident	Optimistic	Concerned
First	4 (12.50)	6 (18.75)	22 (68.75)
Second	7 (13.21)	17 (32.08)	29 (54.72)
Third	7 (6.48)	24 (22.22)	77 (71.30)
Fourth	16 (9.70)	72 (43.64)	77 (46.67)
Fifth	24 (18.46)	82 (63.08)	24 (18.46)
Total	58 (11.89)	201 (41.19)	229 (46.93)

As shown in **Table 5**, most students believe that the employment rate of acupuncture and tuina majors is highly correlated with academic qualifications, and the proportion of high employment rates is significantly greater than low employment rates. Unlike grades 1–4, grade 5 students believe that the employment rate of the major is generally high, while the impact of academic qualifications on the employment rate is secondary.

**Table 5.** Knowledge of employment rate and correlation with academic qualifications [*n* (%)]

Grade	High	Correlation	Low
First	4 (12.50)	24 (75.00)	4 (12.5)
Second	17 (32.08)	29 (54.72)	7 (13.21)
Third	18 (16.67)	72 (66.67)	18 (16.67)
Fourth	45 (27.27)	111 (67.27)	9 (5.45)
Fifth	68 (52.31)	62 (47.69)	0 (0)
Total	152 (31.15)	298 (61.07)	38 (7.79)

As shown in **Table 6**, students generally perceive that the future competitiveness among peers within the major is significant. However, in descending grade levels, the proportion of those who feel peer competitive pressure gradually decreases.

**Table 6.** Knowledge of peer competitive pressure [*n* (%)]

Grade	High	Unchanged	Low
First	27 (84.38)	4 (12.50)	1 (3.13)
Second	45 (84.91)	6 (11.32)	2 (3.77)
Third	83 (76.85)	14 (12.96)	11 (10.19)
Fourth	115 (69.70)	39 (23.64)	11 (6.67)
Fifth	78 (60.00)	40 (30.77)	12 (9.23)
Total	348 (71.31)	103 (21.11)	37 (7.58)

As shown in **Table 7**, most students think that the salary of the major has very high correlations with academic qualifications, followed by high correlations, and a few students think that they have low correlations. However, with the decline in grades, the proportion of students who think that salary has a very high correlation with academic qualifications has decreased significantly.

**Table 7.** Awareness of salary [*n* (%)]

Grade	Very high	High	Low	Very low
First	23 (71.88)	4 (12.50)	3 (9.38)	2 (6.25)
Second	24 (45.28)	17 (32.08)	4 (7.55)	8 (15.09)
Third	66 (61.11)	20 (18.52v)	9 (8.33)	13 (12.04)
Fourth	102 (61.82)	40 (24.24)	4 (4.85)	15 (9.09)
Fifth	60 (46.15)	54 (41.54)	2 (1.54)	14 (10.77)
Total	275 (56.35)	135 (27.66)	22 (4.51)	52 (10.66)

As shown in **Table 8**, undergraduates believe that the work pressure of the major is between high and normal levels, and few people think that the work pressure is low. With descending order of grades, the proportion of students who are under great and normal pressure gradually decreases.

**Table 8.** Knowledge of work pressure [*n* (%)]

Grade	High	Normal	Low
First	12 (37.50)	20 (62.50)	0 (0)
Second	35 (66.04)	18 (33.96)	0 (0)
Third	54 (50.00)	53 (49.07)	1 (0.93)
Fourth	84 (50.91)	80 (48.48)	1 (0.61)
Fifth	82 (63.08)	48 (36.92)	0 (0)
Total	267 (54.71)	219 (44.88)	2 (0.41)

As shown in **Table 9**, there are 98.57% of the students choose to work in the medical industry, and only 1.43% of the students choose to work in industries unrelated to medicine. Among them, most of the students in this major choose careers in acupuncture-related fields, followed by other areas in medicine, and fewer people opt for jobs related to tuina.

**Table 9.** Selection of employment major [*n* (%)]

Grade	Acupuncture and moxibustion	Tuina	Other areas in medicine	Unrelated to the medical profession
First	24 (75.00)	3 (9.38)	4 (12.50)	1 (3.13)
Second	36 (67.92)	5 (9.43)	10 (18.87)	2 (3.77)
Third	84 (77.78)	9 (8.33)	14 (12.96)	1 (0.93)
Fourth	128 (77.58)	17 (10.30)	17 (10.30)	3 (1.82)
Fifth	90 (69.23)	20 (15.38)	20 (15.38)	0 (0)
Total	362 (74.18)	54 (11.07)	65 (13.32)	7 (1.43)

As shown in **Table 10**, the primary reasons for their choice of employment area are the short distance from home, the development of TCM, and the level of economic development, while the location of the school is not the main factor. Most students choose to work near their hometowns, especially the senior students.

**Table 10.** Selection of employment areas [*n* (%)]

Grade	A short distance from home	Development of TCM	Level of economic development	Location of the school	No requirement
First	16 (50.00)	8 (25.00)	8 (25.00)	0 (0)	0 (0)
Second	28 (52.83)	13 (24.53)	5 (9.43)	3 (5.66)	4 (7.55)
Third	47 (43.52)	32 (29.63)	15 (13.89)	7 (6.48)	7 (6.48)
Fourth	58 (35.15)	46 (27.88)	38 (23.03)	1 (0.61)	22 (13.33)
Fifth	36 (27.69)	32 (24.62)	44 (33.85)	8 (6.15)	10 (7.69)
Total	185 (37.91)	131 (26.84)	110 (22.54)	19 (3.89)	43 (8.81)

As shown in **Table 11**, when choosing employment units, students prioritize salary levels, opportunities for personal development, and the development level of the city where the unit is located, while the unit's own level is generally not considered.

**Table 11.** Selection of employment units [*n* (%)]

Grade	Salary levels	Personal development opportunities	Development level of the city where the unit is located	Unit level
First	14 (43.75)	8 (25.00)	8 (25.00)	2 (6.25)
Second	27 (50.94)	16 (30.19)	7 (13.21)	3 (5.66)
Third	44 (40.74)	40 (37.04)	14 (12.96)	10 (9.26)
Fourth	69 (41.82)	66 (40.00)	27 (16.36)	3 (1.82)
Fifth	68 (52.31)	44 (33.85)	12 (9.23)	6 (4.62)
Total	222 (45.49)	174 (35.66)	68 (13.93)	24 (4.92)

As shown in **Table 12**, facing the employment situation, most students choose positive countermeasures, such as actively understanding the employment market, studying harder for further education, and improving comprehensive skills, while a few students consider alternatives. It shows that students generally have a positive attitude towards their own employment.

**Table 12.** Methods to deal with employment [*n* (%)]

Grade	Understanding the employment market	Studying harder for further education	Improving comprehensive capabilities	Considering alternatives	Negative response
First	28 (87.50)	28 (87.5)	32 (100)	4 (12.50)	8 (25.00)
Second	50 (94.34)	50 (94.34)	47 (88.68)	27 (50.94)	13 (24.53)
Third	92 (85.19)	80 (74.07)	89 (82.41)	55 (50.93)	25 (23.15)
Fourth	142 (86.06)	145 (87.88)	150 (90.91)	65 (39.39)	16 (9.70)
Fifth	126 (96.92)	116 (89.23)	122 (93.85)	30 (23.08)	8 (6.15)
Total	438 (89.75)	419 (85.86)	440 (90.16)	181 (37.09)	70 (14.34)

### 3.3. Postgraduate entrance examination planning

As shown in **Table 13**, there are 50.82% of students choose schools located in areas with better economic development and 33.40% of students choose our school. Only 15.78% of students have no preference for the target colleges. Students of different grades greatly differ in the choice of our school and schools located in areas with better economic development. Students in grades 1 and 2 are more inclined to stay in our school, while more students in grades 3, 4, and 5 choose schools located in areas with better economic development than our school.

**Table 13.** Selection of target colleges for postgraduate entrance examination [*n* (%)]

Grade	Schools in areas with better economic development	Our school	No preference
First	8 (25.00)	20 (62.50)	4 (12.50)
Second	14 (26.42)	30 (56.60)	9 (16.98)
Third	39 (36.11)	48 (44.44)	21 (19.44)
Fourth	99 (60.00)	35 (21.21)	31 (18.79)
Fifth	88 (67.69)	30 (23.08)	12 (9.23)
Total	248 (50.82)	163 (33.40)	77 (15.78)

As shown in **Table 14**, the number of postgraduate students choosing professional degrees accounted for 61.68%, the number of academic degree students accounted for 38.32%, and the number of students applying for professional master's degrees is far higher than those choosing master's degrees. In terms of different grades, senior students prefer professional master's degrees. Students who choose to study for master's degrees gradually increase with increasing grades, especially the number of fifth-grade students, accounting for 72.31%.

**Table 14.** Selection of professional or academic degree for postgraduate entrance examination [*n* (%)]

Grade	Professional degree	Academic degree
First	27 (84.38)	5 (15.63)
Second	44 (83.02)	9 (16.98)
Third	92 (85.19)	16 (14.81)
Fourth	102 (61.82)	63 (38.18)
Fifth	36 (27.69)	94 (72.31)
Total	301 (61.68)	187 (38.32)

## 4. Discussion

### 4.1. Analysis of the employment concept of acupuncture and tuina undergraduates

For undergraduates majoring in acupuncture and tuina, there are 70.49% choose to take the postgraduate entrance examination after graduation and 27.46% choose direct employment. The main reason is that with the increasing expectations of doctors and employment pressure, the elevated demand for medical students leads to the increasing interest in postgraduate examination fever. The “5 + 3” medical education model remains an important factor affecting the undergraduate postgraduate examination. Students who choose direct employment mainly want to reduce their family burden and do not have the demand for postgraduate entrance examinations.

From the perspective of students, there are 46.93% of the students are concerned about the current

employment situation, 41.19% are relatively optimistic, and 11.89% are confident. Students generally believe that the employment rate and salary of acupuncture and tuina majors are generally high, but the competitive pressure and work pressure are relatively high. It can be seen that, on the one hand, undergraduates majoring in acupuncture and tuina have a strong awareness of career planning. On the other hand, students think that the employment situation of this major is relatively ideal, but the competition pressure is great and their bachelor's degree is not in demand for employment. Therefore, students hope to enhance their competitive advantage by improving their academic qualifications. In addition, the expectations of lower-grade students on employment situations are higher than those of senior students, which reflects the increasing employment expectations of students. However, it is possible that lower-grade students do not have a comprehensive understanding of the major, and the analysis of learning, examination, and employment situation before employment makes the expectations too ideal.

As for career planning, there are 98.57% of students choose to engage in work related to medicine after graduation, with acupuncture accounting for the largest proportion. This indicates that the employment preferences of medical students are relatively straightforward, with the majority having long been prepared for a lifelong career in medicine. Students in this major have significantly higher recognition of acupuncture employment than tuina, which may be related to the higher salary and ease of acupuncture work than tuina. In addition, salary is the primary criterion of job selection. Most of the students tend to work in areas close to home. According to statistics, most of the students studying in this major are students from Yunnan ethnicity. It can be seen that family factors have a strong guide to the choice of employment areas for graduates, especially in the border minority areas.

For undergraduates majoring in acupuncture and tuina, the postgraduate entrance examination is the first choice after graduation. The number of students preparing for the postgraduate entrance examination is increasing year by year, and the competition for the postgraduate entrance examination will be more intense. Due to the employment choice of medical students being relatively single, most of the students still choose acupuncture and tuina for employment. Most students have higher expectations for postgraduate entrance examinations, and universities in areas with better economic development tend to have richer educational resources and better learning conditions and academic atmosphere. Their graduates also have more advantages in competing for job positions <sup>[4]</sup>, which is the best choice for students. However, with the increasing competition for the postgraduate entrance examination year by year, the expectation and risk have also elevated, and the expected value of the postgraduate entrance examination is decreasing accordingly. Under the background of the current medical education model, more medical students tend to take professional master's degrees <sup>[5]</sup>, and so do undergraduates majoring in acupuncture and tuina. In recent years, more and more medical students have chosen to take an academic master's degree.

## **4.2. Educational reform direction of acupuncture and tuina majors in minority border areas**

### **4.2.1. Establishing a correct view of career selection and guiding the grassroots employment**

Attracting, retaining, and developing talent has become a significant challenge for grassroots organizations in the new era <sup>[6]</sup>. Currently, college graduates face several employment issues, including overly high expectations, a tendency to follow trends blindly, and a lack of grassroots service awareness. As a result, there is often a considerable gap between their expectations and the realities of the job market regarding employment direction, location, positions, and salary and benefits <sup>[7]</sup>. Several Opinions of The State Council on Promoting the Development of the Health Service Industry proposed to improve the TCM service capacity at the grassroots level. Medical institutions in economically developed areas and central cities in eastern China are



becoming saturated, and the demand for undergraduates is small; primary medical institutions in central and western China have a large demand for undergraduates, but few medical students are willing to take root<sup>[8]</sup>. Yunnan belongs to the western minority border areas, and the primary medical services still need to be further strengthened, with a large demand for acupuncture and tuina undergraduate talents. Governments at all levels must further increase policy and financial support, improve the medical service environment, and improve the welfare of grassroots workers. The university should actively respond to national policies, train basic health service talents, and provide a new force for primary medical institutions. The basic work units should properly meet the expectations of modern university undergraduates, implement contracted employment management, and enhance the stability of the basic staff to better introduce undergraduate talents. Students should develop a correct understanding of their careers, recognize the value of being a medical student, and make informed choices based on their individual circumstances. In light of the current trend of intense competition for postgraduate entrance exams, committing to grassroots medical institutions, serving the local community, and benefiting the people in their hometowns is undoubtedly a meaningful way for medical students in minority border areas to realize their life's value<sup>[8]</sup>.

#### **4.2.2. Encouraging entrepreneurship and expanding employment channels for medical students**

The General Office of the State Council issued a notice on the Traditional Chinese Medicine Health Service Development Plan (2015–2020), which outlines initiatives to “develop TCM health care and medical services” and “promote the TCM culture and health tourism industry.” The plan supports the involvement of social forces in the establishment of regulated TCM healthcare institutions, the development of the TCM cultural industry, and the creation of TCM health tourism brands. A large number of emerging industries related to TCM have emerged, providing new opportunities for the employment of TCM talents. However, college students generally have a relatively weak entrepreneurial mindset, with common misunderstandings about entrepreneurship and a significant fear of the associated risks. The shift in college students' employment concepts is primarily achieved through employment education provided by universities<sup>[9]</sup>. TCM colleges and universities should guide medical students toward diversified development by integrating professional knowledge with entrepreneurship and innovation education. This approach will help students understand and explore emerging industries related to their field<sup>[10]</sup>. Examples include medical equipment, rehabilitation, beauty services, and nursing homes. This approach aims to cultivate students' innovative thinking and foster a concept of self-entrepreneurship. Additionally, it is crucial to combine theory with practice by encouraging students to participate in various entrepreneurship and innovation competitions within the school. This participation helps develop their entrepreneurial abilities, allows them to gain practical experience, and broadens the employment opportunities for TCM students by reshaping their employment concepts.

#### **4.2.3. Emphasizing skill training and enhancing the comprehensive competitiveness**

Practical skills teaching is an important link in the process of cultivating qualified talents in acupuncture and tuina. The quality of practical teaching is an important standard for whether acupuncture and tuina talents can adapt to and meet the needs of national traditional Chinese medicine and social rehabilitation and health care. With the gradual saturation of medical personnel in major medical institutions, employment opportunities for undergraduates are becoming increasingly limited. In this context, the importance of practical skills in acupuncture and tuina is becoming more prominent, especially with the expansion of traditional Chinese medicine hospitals and the growing rehabilitation and healthcare industry. An analysis of past graduation outcomes shows that, in addition to medical institutions, a significant proportion of graduates find employment

in traditional Chinese medicine health centers, wellness centers, and beauty institutions. Given the current international environment, China's acupuncture and tuina technology have gained global recognition, with many countries including these practices in their medical insurance coverage. As a result, students majoring in acupuncture and tuina should consider the international TCM medical market as a viable career option, in addition to domestic medical and non-medical institutions. The acupuncture and tuina industry has broad market prospects, and cultivating skilled professionals in these fields is crucial for the development of TCM and its internationalization. Therefore, during their academic training, acupuncture and tuina students should focus on strengthening their professional foundation, mastering clinical skills, and developing excellent professional capabilities. This preparation will enhance their employment prospects and provide them with more career options in the future.

#### **4.2.4. Providing guidance for postgraduate entrance examination and strengthening career planning education**

In the context of the rising trend of "postgraduate entrance examination fever," colleges and universities need to place greater emphasis on the effectiveness of their guidance services for these exams<sup>[11]</sup>. Firstly, it is essential to strengthen career planning education for college students to help them gain a comprehensive and accurate understanding of their own abilities and career goals. This will assist medical students in making informed career decisions and avoid the pitfalls of blindly pursuing postgraduate exams, which can lead to negative outcomes<sup>[12]</sup>. Secondly, attention should be given to both undergraduate and postgraduate performance<sup>[13]</sup>. Students should be encouraged to focus on their fundamental undergraduate courses and actively participate in student groups and related activities. This involvement helps improve their overall quality and competitiveness for postgraduate exams. Finally, schools can utilize their information exchange platforms to offer relevant lectures that enhance students' understanding of postgraduate studies and disseminate valuable information. Providing more communication channels between students and successful alumni can offer effective guidance on review planning, scheduling, and making informed decisions about schools.

### **4.3. Study limitations**

The limited participation of senior acupuncture and tuina undergraduates in this study may be attributed to the demands of graduation practice. Consequently, the study primarily involved freshmen, sophomores, and juniors, with lower participation rates from seniors and fifth-year students. Nevertheless, the study still provides insights into the selection trends and changes in understanding among undergraduates at different academic levels.

## **5. Conclusion**

In conclusion, the employment perspectives of acupuncture and tuina undergraduates in minority border areas change significantly with their academic progress. To address the existing challenges, colleges and universities should:

- (1) Establishing a correct view of job selection: Students are guided towards employment opportunities at the grassroots level.
- (2) Encouraging entrepreneurship: Individuals are supported in starting their own businesses and expanding employment channels for medical students.
- (3) Focusing on skills training: Students' comprehensive competitive advantages are enhanced through targeted skills development.
- (4) Providing guidance for postgraduate entrance exams: Career planning education and support for postgraduate entrance exams are strengthened.

The employment situation for college students affects not only their own development but also the stability of society and the country. Traditional Chinese medicine colleges and universities in minority border areas should prioritize student employment and postgraduate exam preparation. By shifting graduates' employment concepts, improving their skills, and helping them integrate into societal development, these institutions can assist students in realizing their career goals and contributing meaningfully to their communities.

## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Su W, Chen Y, Gu Z, 2021, Countermeasures and Suggestions to Solve the Employment Difficulties of Agricultural College Graduates in Border Ethnic Minority Areas. *Anhui Agricultural Science*, 49(15): 277–279.
- [2] Fang W, 2020, On the Strategies and Employment Reality in Frontier Universities——A Case Study of Pu'er University. *Journal of Pu'er University*, 36(03): 131–133.
- [3] Kuang H, Hu Y, Hao M, et al., 2019, How to Improve the Enthusiasm of Practice and Postgraduate Entrance Examination Rate in Teaching. *An Empirical Research on the Modernization of Higher Education*, (1): 333–339.
- [4] Zhou Y, Zhou Y, Zhu J, et al., 2021, Practice and Exploration of Undergraduate Students Choosing Postgraduate Colleges and Majors. *Science, Education and Culture (Shanghai Ten Magazine)*, (08): 12–15.
- [5] Su Y, Chen L, Gao L, 2017, Analysis and Countermeasures of “Postgraduate Entrance Examination Fever” for Medical Students. *Journal of Nanjing Medical University (Social Science Edition)*, 17(06): 499–502.
- [6] Chen L, Tang X, Pang G, et al., 2022, Analysis of Undergraduate Employment Concept and Countermeasures under the Influence of the Epidemic. *Modern Commerce and Industry*, 43(09): 95–98.
- [7] Li F, Wang J, Sun Q, 2017, Analysis of the Employment Status and Prospect of Acupuncture and Tuina Major. *Health Industry in China*, 14 (11): 170–173.
- [8] Huang Y, Yin L, Chen G, et al., 2017, Investigation and Analysis of the Willingness of Medical Students in Western China under the “5 + 3” Medical Education Mode. *Higher Medical Education in China*, (12): 11–12 + 23.
- [9] Dai J, 2021, Research on the Transformation Strategy of Higher Vocational Students' Employment View from the Perspective of “Mass Entrepreneurship and Innovation.” *Journal of Liaoning Radio and Television University*, (04): 47–50.
- [10] Xiao L, Li G, Chen Y, 2016, Investigation on the Employment Intention and Employment Status of Acupuncture and Tuina Graduates from Independent Universities. *Health for everyone*, (06): 17.
- [11] Che R, Zeng H, Hu K, et al., 2020, Research on the Guidance of Postgraduate Entrance Examination in Universities from the Perspective of the Characteristics of Successful Students. *Journal of East China University of Technology (Social Science Edition)*, 39(04): 379–383.
- [12] Song G, Wang S, Xu H, 2021, Status Quo and Strategy Analysis of Medical Students' Career Planning. *Health Vocational Education*, 39(13): 24–25.
- [13] Zu X, Song A, Peng Y, 2018, From the Perspective of Medical College Students under the Theory of Career Planning. *Continuing Medical Education in China*, 10(25): 21–23.

### Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.