A Study On The Development Of Emotional Intelligence And Its Relationship With Job Satisfaction Among Special School Teachers In Ethnic Minority Regions Of Southwest China

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Abstract:

This study delves into the relationship between emotional intelligence and job satisfaction among special education teachers in ethnic minority regions of western China, aiming to address the deficiencies in this field of research and provide dual guidance for both theory and practice. A self-developed questionnaire was administered to 230 special education teachers, with 218 valid responses collected, yielding an effective response rate of 98.6%. The study reveals that both emotional intelligence and job satisfaction among special education teachers are at moderate levels, and significant differences exist across various aspects such as gender, professional background, and job title. Importantly, emotional intelligence is identified as a crucial factor influencing job satisfaction, with a positive correlation observed between the two in multiple dimensions. Based on these findings, this study recommends that educational authorities and schools should prioritize the development of emotional intelligence, incorporate it into training programs, consider it as a reference for recruitment and selection, and optimize management systems and incentive mechanisms to improve interpersonal relationships, adjust workloads appropriately, and meet teachers' self-actualization needs, thereby enhancing job satisfaction.

Keywords: *emotional intelligence, job satisfaction, special education teachers, ethnic minority regions, western China*

I.Introduction

Special education teachers, serving as pivotal guides on the path of growth for exceptional children, shoulder multifaceted responsibilities encompassing daily care, life skills training, knowledge impartment, emotional support, and rehabilitative interventions (Li Mingjun, 2011; Zhang Yingying, 2012). Within this intricate and nuanced educational journey, teachers and students jointly navigate a spectrum of emotional fluctuations that profoundly shape their behavioral patterns and individual developmental trajectories, forming the emotional cornerstone of the special education environment. Emotional intelligence (EI), the capability to recognize, understand, regulate one's own emotions and those of students, plays a pivotal role in the realm of special education (Qin Meifang, 2014). Teachers with high EI tend to experience greater job satisfaction, which is intimately linked to their work performance (Xiao Lijun, 2012). In special education practice, teachers

frequently mobilize emotional resources to address challenges such as stimulating learning interests, soothing emotional turmoil, and correcting inappropriate behaviors, further underscoring the indispensability of EI. However, despite the immense emotional and mental investment of special education teachers, their professional value is often misunderstood and underestimated, leading to a prevalent lack of achievement and belonging, thereby destabilizing their professional identity and worth. In reality, it is the profound engagement and effective regulation of emotions that endow the profession of special education teachers with its unique charm and professionalism. Thus, a deep exploration into the EI of special education teachers and its value holds profound implications for advancing the healthy development of special education.

In recent years, with the in-depth implementation of the "Medium- and Long-Term Education Reform and Development Plan (2010-2020)" and the "Special Education Improvement Plan (2017-2020)," special education in southwestern ethnic minority regions has garnered unprecedented attention and development. Taking Xinjiang as an example, the number of special education schools has surged, yet the shortage of qualified teachers has become increasingly prominent. To address this issue, measures such as recruiting majors-related students and transferring general education teachers have been adopted. Nevertheless, due to the lack of professional backgrounds and experiences among transferred teachers, coupled with the complexity and uniqueness of special education in ethnic minority regions, teachers confront immense psychological pressures and occupational challenges. Newly recruited teachers often struggle to adapt to the work environment, plunging into a "three-year bottleneck" and contributing to high rates of job burnout and turnover. Moreover, societal misconceptions about special education and uneven distribution of educational resources further exacerbate teachers' predicaments. In this context, the EI of special education teachers becomes paramount, not only impacting teachers' personal mental health and career development but also directly influencing the quality of education and growth environment for exceptional children.

Currently, research on the EI of special education teachers in southwestern ethnic minority regions remains scarce. Hence, this study aims to systematically analyze the current state of EI and job satisfaction among special education teachers in this region, revealing their intrinsic connections and providing a solid theoretical foundation and practical guidance for enhancing teachers' EI and improving job satisfaction. Specific research objectives encompass: employing questionnaires, interviews, and other methods to comprehensively reveal the current status of EI among special education teachers and its influencing factors; deeply analyzing how EI affects teachers' job satisfaction and the interaction mechanisms between them; and, based on the findings, proposing concrete strategies and recommendations for educational authorities, schools, and individual teachers to enhance EI, improve job satisfaction, and offer empirical support and practical pathways for enhancing the quality of special education and promoting teachers' professional development.

Research Participants

This study selected 218 in-service special education teachers from special education schools in southwestern ethnic minority regions as research participants. The inclusion criteria for participants were strictly defined as follows: they must be in-service special education teachers with over six months of experience in special education and willing to participate in the study. Given the remote geographical locations and wide distribution of special education schools in southwestern ethnic minority regions, we employed the Wenjuanxing questionnaire platform to facilitate questionnaire distribution, aiming to overcome geographical barriers and enhance survey efficiency. During the questionnaire distribution process, 230 questionnaires were sent out, and 218 valid responses were ultimately collected. After rigorous screening and verification, the proportion of valid questionnaires reached 94.8%, providing a solid foundation for subsequent data analysis and research (Table 1).

Table 1 General Information of Research Participants (n=218)

Category	Group	n	Percentage
Gender	Male	40	18.35%
	Female	178	81.65%
Student Type	Children with Intellectual Disabilities	172	78.89%
	Autism	56	25.69%
	Children with Visual Impairments	12	5.50%
	Children with Hearing Impairments	24	10.96%
Age	Below 20	14	6.42%
	21-30	108	49.54%
	31-40	66	30.28%
	41-50	22	10.09%
	Above 51	3	1.38%
Education Level	Junior College	67	30.73%
	Bachelor's Degree	148	67.89%
	Master's Degree or Above	3	1.38%
Major	Special Education	98	45.00%
	Non-Special Education	72	33.03%
	Non-Education	48	22.02%
Teaching Experience	3-5 Years	56	25.7%
	6-10 Years	54	24.8%
	11-16 Years	20	9.2%
	More than 16 Years	30	13.8%
Professional Title	Unranked	78	35.8%
	Junior	90	41.3%
	Intermediate	40	18.3%
	Senior	10	4.6%

II.Research Methods And Tools

Basic Data Collection of Research Subjects

This study focuses on the group of special education teachers in ethnic minority regions of Southwest China. The collected basic statistical data includes but is not limited to gender, age, educational background, professional background, teaching experience, professional title, and types of students taught, aiming to comprehensively depict the group characteristics of the research subjects.

Development and Application of the "Emotional Intelligence Scale for Special Education Teachers in Ethnic Minority Regions of Southwest China"

Scale Development Process:

This study designed and implemented the "Emotional Intelligence Scale for Special Education Teachers in Ethnic Minority Regions of Southwest China" to explore the current status and influencing factors

of emotional intelligence among special education teachers in this region. The scale was rigorously developed, initially through in-depth interviews to collect teachers' insights on the role of emotional intelligence in teaching, self-emotion management, and student emotion handling. This was followed by an open-ended questionnaire survey to expand the sample size and reduce psychological effects, ensuring comprehensive and effective information.

Based on Goleman's theory, the scale covers five core dimensions: self-emotion awareness, self-management, self-motivation, awareness of others' emotions (including students, parents, and colleagues), and interpersonal relationship handling (including teacher-student relationships, colleague relationships, and home-school cooperation). Each dimension includes specific items to comprehensively assess the emotional intelligence level of special education teachers.

Adoption of the "Job Satisfaction Survey Scale for Primary and Middle School Teachers"

This study adopts the meticulously designed "Job Satisfaction Survey Scale for Primary and Middle School Teachers" by Feng Bolin to scientifically assess the job satisfaction of special education teachers. This scale holds significant importance and high applicability in this field. The scale comprises 26 items, comprehensively covering five core dimensions: self-actualization, work intensity, salary, leadership relationships, and colleague relationships. Each item delves into teachers' satisfaction in the corresponding aspect.

Using a Likert 5-point scoring method, the scale precisely quantifies teachers' satisfaction with each dimension, ranging from 1 to 5, representing very dissatisfied to very satisfied, ensuring the fineness and accuracy of the assessment results. Additionally, the scale demonstrates excellent reliability and validity, with alpha coefficients for each factor stabilizing between 0.64 and 0.84, fully proving its measurement stability and reliability, and accurately reflecting the job satisfaction status of special education teachers.

Data Collection Process
Preliminary Survey

Before formally initiating the survey, we conducted a preliminary survey to optimize the scale and assess its applicability among special education teachers. According to scale design principles, the sample size for the preliminary survey was selected as 3-5 times the longest dimension (i.e., the interpersonal relationship handling dimension, containing 10 items), ultimately determining 50 special education teachers as the subjects for the preliminary survey. Furthermore, we conducted in-depth interviews and online communications with at least 20 special education teachers from different regions and types of schools to collect more supplementary information and further refine the research content.

Formal Survey

The formal survey was conducted anonymously to ensure the privacy of respondents and the authenticity of the data. We utilized the WenJuanXing platform and widely distributed the questionnaire link through Western special education teacher groups and school contacts to ensure the breadth and representativeness of the sample. Through careful organization and implementation, we ultimately collected 230 questionnaires, among which 218 were valid, with an effective recovery rate of 94.8%.

Quality Control
Preparation Before Survey

In the survey preparation stage, we extensively referenced relevant domestic and foreign literature to

ensure the scientificity and rationality of the scale design. At the same time, we conducted strict reliability and validity tests on the preliminary survey sample and adjusted and optimized the scale based on the test results to ensure its applicability in the formal survey. Additionally, we fully communicated with school contacts, clarifying the purpose and significance of the survey and gaining their support and cooperation.

Implementation During Survey

During the survey implementation, we clearly stated the purpose of the survey and filling instructions in the questionnaire preface to ensure the informed consent of respondents. At the same time, we distributed the questionnaire to work groups through school contacts and emphasized the importance and significance of the survey to enhance teacher participation.

Post-Survey Processing

After the survey, we rigorously screened and cleaned the collected data, excluding unqualified questionnaires. We used SPSS software for data entry and logical checks, verified and corrected erroneous data against the original data to ensure data accuracy and reliability.

Data Analysis Methods

This study employs various statistical methods for in-depth data analysis, including descriptive statistical analysis to summarize data characteristics, T-tests and analysis of variance (ANOVA) to compare differences between different groups, correlation analysis to explore relationships between variables, exploratory factor analysis to verify the scale structure, and regression analysis to reveal the influence mechanism of independent variables on dependent variables.

III.Results

Development and Item Selection of the "Emotional Intelligence Scale for Special Education Teachers in Ethnic Minority Regions of Southwest China"

In the scale development process, item selection is a crucial step to ensure the scientificity and effectiveness of the scale. This process aims to assess the suitability and reliability of each item in the scale and improve the overall measurement quality of the scale by identifying and eliminating items that do not meet the standards. Based on the research methods of Wu Minglong (2010), this study conducted in-depth analysis of the items using the extreme group method and item-total correlation method.

Extreme Group Method

The extreme group method compares the average score differences of the highest-scoring (top 27% as the high-score group) and lowest-scoring (bottom 27% as the low-score group) subject groups on each item to test the item's discriminatory power. The specific steps include: first, determining the cutoff values for the high and low-score groups based on the total score distribution (in this study, scores below 107.7 were set as the low-score group, and scores above 126 were set as the high-score group); subsequently, using independent sample T-tests to calculate the average score differences for each item between the two groups, i.e., the critical ratio (CR). If the CR value of an item does not reach significance ($p>0.05$), it indicates that the item lacks sufficient discriminatory power in distinguishing between the high and low-score groups and should therefore be deleted.

Item-Total Correlation Method

Apart from the extreme group method, this study also employed the item-total correlation method to

further screen items. This method assesses the consistency of each item with the overall scale by calculating the correlation coefficient between each item's score and the total score of the scale. If the correlation coefficient between an item and the total score does not reach significance, it suggests that the item has a weak association with the overall construct measured by the scale and should be removed.

In summary, this study comprehensively utilized the extreme group method and item-total correlation method to rigorously screen the items of the "Emotional Intelligence Scale for Special Education Teachers in Ethnic Minority Regions of Southwest China". Through this process, the effectiveness and reliability of each item in the scale were ensured, laying a solid foundation for subsequent data analysis.

Table 2: Item Analysis of the "Emotional Intelligence Scale for Special Education Teachers in Ethnic Minority Regions of Southwest China"

Item	t	sig	Item	t	sig	Item	t	sig
1	-5.260	0.000	11	-6.389	0.000	21	-3.020	0.000
2	-7.096	0.000	12	-7.719	0.000	22	-5.110	0.000
3	-6.35	0.000	13	-5.322	0.000	23	-5.185	0.000
4	-6.301	0.000	14	-4.551	0.000	24	-4.384	0.000
5	-5.527	0.000	15	-5.674	0.000	25	-3.335	0.000
6	-2.489	0.000	16	-4.597	0.000	26	-7.438	0.000
7	-4.493	0.000	17	-5.165	0.000	27	-7.188	0.000
8	-5.402	0.000	18	-4.776	0.000	28	-6.513	0.000
9	-6.102	0.000	19	-5.197	0.000	29	-6.381	0.000
10	-5.578	0.000	20	-4.858	0.000	30	-7.067	0.000

Through statistical analysis of the questionnaire data, the above table clearly demonstrates significant differences in scores across all 30 items between the high and low scoring groups of teachers (Table 2). This result indicates that each item in the questionnaire effectively distinguishes special education teachers with different levels of emotional intelligence, thereby validating the high level of discrimination among the questionnaire items. This finding not only reinforces the discriminatory power of the questionnaire but also lays a solid foundation for subsequent data analysis and factor exploration.

Process and Results of Exploratory Factor Analysis

To delve deeper into the internal structure of the "Emotional Intelligence Scale for Special Education Teachers in Southwest Ethnic Minority Regions," this study conducted an exploratory factor analysis. Firstly, through the KMO test (value = 0.932, far exceeding the 0.7 standard) and Bartlett's Test of Sphericity (chi-square value = 2999.121, $p < 0.01$), it was confirmed that the data were suitable for factor analysis. Principal Component Analysis (PCA) was employed to extract factors with eigenvalues greater than 1, representing the main sources of variation in the data. Subsequently, the Kaiser Normalization Varimax rotation method was applied to optimize the factor loading matrix, enabling high-loading items to converge on respective factors, thus clarifying factor interpretability. Based on the rotated matrix, items with factor loadings exceeding 0.50 were retained (referencing Lei Liqiong, 2008; Ma Jinhuan, 2006), as these items were highly representative on each factor, providing a reliable basis for factor naming and theoretical construction. This process initially revealed the multidimensional structure of the scale, offering important references for subsequent research and application (Table 3).

Table 3: Common Factor Variance of the "Emotional Intelligence Scale for Special Education Teachers in Southwest Ethnic Minority Regions"

Item	Initial	Extracted	Item	Initial	Extracted	Item	Initial	Extracted
1	1	0.752	11	1	0.77	21	1	0.656
2	1	0.711	12	1	0.748	22	1	0.702
3	1	0.858	13	1	0.861	23	1	0.715
4	1	0.708	14	1	0.831	24	1	0.661
5	1	0.907	15	1	0.772	25	1	0.666
6	1	0.557	16	1	0.693	26	1	0.848
7	1	0.587	17	1	0.708	27	1	0.828
8	1	0.667	18	1	0.736	28	1	0.683
9	1	0.716	19	1	0.814	29	1	0.732
10	1	0.687	20	1	0.749	30	1	0.761

In this study, to thoroughly investigate the construct validity of the scale, an Exploratory Factor Analysis (EFA) approach was employed. We selected principal components based on the criterion of eigenvalues greater than 1, a standard commonly used to identify factors with significant explanatory power. The results successfully extracted five principal components from the data, which collectively explained 73.6% of the total variance, far exceeding the 70% threshold. This indicates that these components can well represent the original data information and possess high explanatory power.

To further clarify the latent variables and internal structures represented by each component, we utilized the Varimax rotation method (Kaiser Normalization Varimax Rotation) for principal component rotation. This method concentrates factor loadings, facilitating interpretation. After rotation, a clear factor matrix was formed (as shown in Table 4), displaying the loadings of observed variables on each factor. This provides a solid empirical foundation for subsequent theoretical construction and hypothesis testing.

Table 4: Rotated Component Matrix of the "Emotional Intelligence Scale for Special Education Teachers in Southwest Ethnic Minority Regions"

Item	Factor1	Factor2	Factor3	Factor4	Factor5
1				0.816	
2				0.743	
3				0.877	
4				0.704	
5				0.895	
6			0.686		
7			0.736		
8			0.809		
9			0.837		
10			0.742		
11			0.763		
12			0.843		
13			0.814		
14					0.811
15					0.799
16					0.763
17	0.702				
18	0.754				
19	0.745				
20	0.741				
21	0.741				
22	0.764				
23	0.748				

24		0.696			
25		0.689			
26		0.753			
27		0.774			
28		0.688			
29		0.694			
30		0.669			

Evaluation of Questionnaire Reliability and Validity

Reliability is crucial for assessing the stability of a test, reflecting the accuracy, reliability, and reproducibility of the questionnaire results. Internal consistency reliability, split-half reliability, and test-retest reliability are commonly used evaluation criteria, with internal consistency reliability being paramount. In this study, the Cronbach's alpha coefficient was employed for assessment, where a value between 0.7 and 0.8 indicates good reliability, and a value exceeding 0.8 signifies excellent reliability. For the "Emotional Intelligence Scale for Special Education Teachers in Southwest Ethnic Minority Regions," the overall scale's alpha coefficient was 0.921, far exceeding 0.8, demonstrating extremely high internal consistency. The alpha coefficients for each dimension ranged from 0.709 to 0.928, all reaching good to excellent levels, verifying the overall stability and consistency of the scale.

Validity measures the ability of a test to accurately measure the intended traits, i.e., the congruence between the results and the content being assessed. Content validity, criterion-related validity, and construct validity are the primary aspects of evaluation. This study focused on construct validity, examining the fit between the scale's structure and theoretical construct. The overall scale's validity coefficient was 0.825, indicating that the scale accurately measures the emotional intelligence of special education teachers. The validity coefficients for each dimension ranged from 0.73 to 0.867, all showing good levels, supporting a high degree of consistency between the theoretical construct of the scale and actual measurements.

Table 5 Correlation Analysis of Dimensions of Emotional Intelligence Knowledge for Special Education Teachers (n=218)

Dimension		Understanding Own Emotions	Self-Emotion Management	Self-Motivation	Understanding Others' Emotions	Handling Interpersonal Relationships
Understanding Own Emotions	Correlation Coefficient	1.000	0.205*	.564**	0.443**	0.509**
	sig (2-tailed)	0.033	0.000	0.000	0.000	0.000
Self-Emotion Management	Correlation Coefficient	0.205*	1.000	.318**	0.093	0.187
	sig (2-tailed)	0.033		0.001	0.338	0.552
Self-Motivation	Correlation Coefficient	.564**	.318**	1.000	0.000	0.000
	sig (2-tailed)	0.000	0.001		0.000	0.000
Understanding Others' Emotions	Correlation Coefficient	0.443**	0.093	0.000	1.000	0.000
	sig (2-tailed)	0.000	0.338	0.000		0.000
Handling Interpersonal Relationships	Correlation Coefficient	0.509**	0.187	0.000	0.000	1.000
	sig (2-tailed)	0.000	0.052	0.000	0.000	

*Indicates $p < 0.05$, ** indicates $p < 0.01$.

Based on the data presented in Table 5, this study conducted a thorough analysis of the correlations between various dimensions of emotional intelligence. The results reveal:

The dimension of Understanding Own Emotions exhibits a significant positive correlation with all other four dimensions (Self-Emotion Management, Self-Motivation, Understanding Others' Emotions, and

Handling Interpersonal Relationships) at $p < 0.05$. This suggests that a profound understanding of one's own emotions positively influences other aspects of emotional intelligence.

The Self-Emotion Management dimension shows a significant positive correlation with the Self-Motivation dimension at $p < 0.05$, but the correlation with the Understanding Others' Emotions and Handling Interpersonal Relationships dimensions is not significant. This implies that effective emotion management is crucial for enhancing self-motivation but may not directly facilitate the understanding of others' emotions or improve interpersonal relationships.

The Self-Motivation dimension demonstrates a significant positive correlation with all other dimensions at $p < 0.01$. This indicates that self-motivation, as an intrinsic driving force, promotes the comprehensive development of emotional intelligence.

The Understanding Others' Emotions dimension is highly significantly positively correlated with the Understanding Own Emotions, Self-Motivation, and Handling Interpersonal Relationships dimensions at $p < 0.01$. This emphasizes the central role of understanding others' emotions in emotional intelligence, which is closely related to self-awareness and self-motivation, and is also key to handling interpersonal relationships.

The Handling Interpersonal Relationships dimension shows a significant positive correlation with the Understanding Own Emotions, Self-Motivation, and Understanding Others' Emotions dimensions at $p < 0.01$. This suggests that when dealing with complex interpersonal relationships, an individual's awareness of their own emotions, level of self-motivation, and ability to understand others' emotions are all crucial.

Table 6: Current Status of Emotional Intelligence of Special Education Teachers in Southwest Ethnic Minority Regions

Item	N	Mean	Standard Deviation
Understanding Own Emotions	218	3.8654	0.69
Self-Emotion Management	218	3.4477	0.87
Self-Motivation	218	3.9931	0.7
Understanding Others' Emotions	218	3.9423	0.64
Handling Interpersonal Relationships	218	4.086	0.71

Based on the data presented in Table 6, this study comprehensively evaluates the emotional intelligence of special education teachers in southwestern ethnic minority regions. The results indicate that this group scored above 3.4 in all aspects of emotional intelligence, significantly higher than the midpoint of 3, indicating an overall level ranging from upper-medium to high.

A detailed analysis of each dimension reveals that special education teachers excel in interpersonal relationship management, demonstrating flexibility in diverse interactions, effective communication, and the establishment of positive relationships. They also score high in self-motivation, indicating strong intrinsic drive, a positive attitude, and a pursuit of personal growth and professional development.

In terms of understanding others' emotions, they exhibit high proficiency, demonstrating keen awareness and comprehension of others' emotions, laying a foundation for providing personalized education and promoting students' mental health. Their scores in the dimension of self-awareness are above average, suggesting they can well recognize and accept their own emotions, which helps maintain emotional stability and make rational decisions when facing challenges.

Comparatively, the scores in the dimension of self-emotion management are slightly lower but still above the average level. This suggests that future efforts should focus on further enhancing their abilities in

emotion regulation and stress coping to better manage personal emotions and maintain a balance between work and life.

Analysis of Demographic Variable Differences in Emotional Intelligence of Special Education Teachers in Southwestern Ethnic Minority Regions

Gender Differences in Emotional Intelligence of Special Education Teachers in Southwestern Ethnic Minority Regions

As shown in Table 7, significant differences exist between genders in the dimensions of self-awareness (P<0.001), self-motivation (P<0.05), understanding others' emotions (P<0.05), and interpersonal relationship management (P<0.05), but not in self-emotion management and understanding others' emotions.

Table 7 Gender Differences in Emotional Intelligence of Special Education Teachers in Southwestern Ethnic Minority Regions

Dimension	Male (N=40)	Female (N=178)	T	P
Understanding Own Emotions	3.3±0.94	3.98±0.58	13.698	0.000*
Self-Emotion Management	3.32±1.09	3.48±0.82	0.52	0.47
Self-Motivation	3.68±1.07	4.06±0.57	5.218	0.024*
Understanding Others' Emotions	3.71±1.01	4.00±0.51	3.422	0.067
Handling Interpersonal Relationships	3.77±1.10	4.12±0.56	5.148	0.025*

Differences in Emotional Intelligence of Special Education Teachers in Southwestern Ethnic Minority Regions Based on Student Categories

Across all dimensions, the average scores for various categories of special education students range from 3.30 to 4.21, indicating relatively similar levels of emotional intelligence. Autistic students score highest in the dimensions of self-awareness and understanding others' emotions, while their scores in self-emotion management and self-motivation, though not the highest, are also at a relatively high level. Hearing-impaired students score lowest in self-emotion management but have scores close to the average in other dimensions. Visually impaired students score lowest in self-motivation and exhibit larger standard deviations in self-awareness and interpersonal relationship management, suggesting significant individual differences within these dimensions.

The F-values are small across all dimensions, and the P-values are all greater than 0.05, indicating no significant differences among various categories of special education students in the dimensions of emotional intelligence (Table 8).

Table 8 Differences in Emotional Intelligence of Special Education Teachers in Southwestern Ethnic Minority Regions Based on Student Categories

Dimension	Intellectually Disabled Students (N=172)	Autistic Students (N=28)	Visually Impaired Students (N=12)	Hearing-Impaired Students (N=24)	F	P
Understanding Own Emotions	3.80±0.71	4.06±0.60	3.78±0.98	3.97±0.58	0.355	0.786
Self-Emotion Management	3.44±0.89	3.54±1.06	3.60±0.40	3.30±0.37	0.143	0.934
Self-Motivation	3.96±0.76	4.21±0.50	3.75±0.43	4.04±0.10	0.641	0.59
Understanding Others' Emotions	3.93±0.68	4.14±0.42	3.95±0.33	3.64±0.23	0.915	0.436
Handling Interpersonal	4.10±0.75	4.02±0.48	3.96±1.06	4.10±0.33	0.087	0.967

Relationships					

Age Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

There were no significant differences (P > 0.05) across age groups in the five dimensions of emotional intelligence among special education teachers. However, in the dimension of understanding others' emotions, teachers aged 41-50 scored relatively higher. In the dimension of managing self-emotions, teachers aged 31-40 and those older than 50 scored slightly lower than other groups. Attention may be needed to ensure balanced development of teachers' abilities in these two dimensions (Table 9).

Table 9 Age Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

Dimension	20-31 岁 (N=122)	31-40 岁 (N=66)	41-50 岁 (N=22)	>50 岁 (N=8)	F	P
Understanding Own Emotions	3.89±0.76	3.61±0.83	3.92±1.06	3.87±0.69	0.437	0.782
Self-Emotion Management	3.56±0.99	3.61±0.66	3.20±1.30	3.44±0.87	1.305	0.273
Self-Motivation	3.97±0.94	4.09±0.70	4.05±0.50	3.99±0.70	0.221	0.926
Understanding Others' Emotions	3.84±0.87	3.99±0.32	4.54±0.54	3.94±0.64	1.62	0.175
Handling Interpersonal Relationships	4.00±0.57	4.06±0.94	4.27±0.70	4.72±0.26	1.37	0.249

Educational Background Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

There were no significant differences (P > 0.05) in the various dimensions of emotional intelligence among special education teachers with different educational backgrounds (junior college, undergraduate, master's degree or above). Teachers with different educational backgrounds performed similarly in the five dimensions of emotional intelligence, indicating that educational background had no significant impact on the emotional intelligence of special education teachers (Table 10).

Table 10 Educational Background Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

Dimension	Junior College (N=67)	Undergraduate (N=148)	Master's or Above (N=3)	F	P
Understanding Own Emotions	3.94±0.58	3.84±0.74	3.68±0.73	0.333	0.717
Self-Emotion Management	3.42±0.89	3.46±0.87	3.40±1.22	0.032	0.969
Self-Motivation	4.05±0.60	3.97±0.74	4.00±1.00	0.133	0.875
Understanding Others' Emotions	4.08±0.51	3.89±0.69	3.90±0.30	0.999	0.372
Handling Interpersonal Relationships	4.10±0.60	4.07±0.76	4.38±0.38	0.281	0.755

Professional Background Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

There were significant differences in the emotional intelligence of special education teachers based on their professional backgrounds. Specifically, teachers with a background in normal education but not specializing in special education outperformed those with backgrounds in special education or non-normal

education in the dimensions of managing self-emotions, self-motivation, and understanding others' emotions (P < 0.05). However, there were no significant differences in the dimension of handling interpersonal relations (P > 0.05) (Table 11).

Table 11 Professional Background Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

Dimension	Special Education (N=98)	Normal Education (Non-Special) (N=72)	Non-Normal Education (N=48)	F	P
Understanding Self-Emotions	3.87±0.56	3.95±0.72	3.73±0.88	0.723	0.488
Managing Self-Emotions	3.33±0.83	3.70±0.87	3.30±0.91	2.409	0.095*
Self-Motivation	3.87±0.53	4.28±0.58	3.82±1.01	4.753	0.011*
Understanding Others' Emotions	3.92±0.47	4.16±0.48	3.66±0.97	4.772	0.010*
Handling Interpersonal Relations	4.09±0.57	4.24±0.56	3.84±1.03	2.327	0.103

Professional Title Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

In ethnic minority regions of southwest China, there were significant differences in the emotional intelligence of special education teachers based on their professional titles. Specifically, teachers with no title or an intermediate title performed significantly better in the dimensions of understanding self-emotions, self-motivation, understanding others' emotions, and handling interpersonal relations (P < 0.05). However, there were no significant differences in the dimension of managing self-emotions among teachers with different titles (P > 0.05) (Table 12).

Table 12 Professional Title Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

Dimension	No Title (n=78)	Junior Title (n=90)	Intermediate Title (n=40)	Senior Title (n=10)	F	P
Understanding Self-Emotions	4.02±0.57	3.62±0.69	4.13±0.74	3.83±0.87	3.767	0.013*
Managing Self-Emotions	3.42±0.93	3.35±0.74	3.78±0.93	3.24±1.26	1.267	0.289
Self-Motivation	4.06±0.56	3.74±0.81	4.30±0.52	4.50±0.50	4.668	0.004*
Understanding Others' Emotions	4.00±0.51	3.74±0.75	4.19±0.48	4.20±0.46	3.033	0.033*
Handling Interpersonal Relations	4.15±0.57	3.82±0.83	4.46±0.47	4.48±0.31	5.067	0.003*

Differences in Emotional Intelligence of Special Education Teachers Based on Teaching Experience in Ethnic Minority Regions of Southwest China

Table 8 reveals the relationship between the emotional intelligence of special education teachers and their teaching experience in ethnic minority regions of southwest China: There are no significant differences among teachers of various teaching tenures in the dimensions of understanding their own emotions, managing their own emotions, and recognizing the emotions of others. However, in the dimensions of self-motivation and interpersonal relationship handling ability, teachers' scores significantly increase with teaching experience, particularly for those with more than 16 years of teaching experience (see Table 13).

Table 13 Differences in Emotional Intelligence of Special Education Teachers Based on Teaching Experience in Ethnic Minority Regions of Southwest China

Dimension	≤2 years (n=58)	3-5 years (n=56)	6-10 years (n=54)	11-16 years (n=20)	>16 years (n=30)	F	P
Understanding Own Emotions	3.76±3.87	3.87±	3.83±	4.27±	3.86±	1.013	0.404
	0.84	0.51	0.58	0.49	0.95		
Managing Own Emotions	3.56±3.22	3.22±	3.29±	3.90±	3.64±	1.702	0.155
	0.82	0.73	0.95	0.83	1.02		
Self-Motivation	3.60±4.02	4.02±	4.19±	4.15±	4.23±	3.691	0.008*
	0.88	0.57	0.52	0.68	0.61		
Recognizing Others' Emotions	3.70±3.90	3.90±	4.02±	4.10±	4.26±	2.366	0.058
	0.9	0.46	0.48	0.59	0.47		
Handling Interpersonal Relationships	3.72±3.95	3.95±	4.33±	4.23±	4.51±	5.268	0.001*
	0.91	0.58	0.42	0.61	0.56		

Current Status of Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China

In this study, job satisfaction was measured using a five-point scale, where a score of 3.0 indicated a moderate level of job satisfaction among special education teachers. Table 14 details the mean satisfaction scores and standard deviations for special education teachers in ethnic minority regions of southwest China across five aspects: self-actualization, work intensity, salary income, leadership relations, and colleague relations. The data reveal higher satisfaction with self-actualization and colleague relations, while satisfaction with salary income is relatively lower, indicating a need for improvement.

Table 14: Current Status of Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China

Dimension	Mean	Standard Deviation
Self-actualization	3.751	0.546
Work intensity	2.513	0.45
Salary income	2.212	0.797
Leadership relations	3.508	0.582
Colleague relations	3.712	0.536

Comparative Analysis of Demographic Differences in Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China

Table 15 presents differences in job satisfaction among special education teachers in ethnic minority regions of southwest China based on gender, whether they are head teachers, and whether they are from teacher education programs specialized in special education. Independent sample t-tests were conducted on job satisfaction and its two dimensions with gender and specialization in special education teacher education as variables. The results showed no significant differences in job satisfaction based on gender (see Table 15). Significant differences were found in job satisfaction based on whether teachers were from specialized teacher education programs, with special education teachers from specialized programs reporting higher job satisfaction than those from non-specialized programs.

Table 15: Differences in Job Satisfaction Based on Gender, Whether Head Teacher, and Whether from Specialized Teacher Education Program

Aspect	Category	Job Satisfaction (Mean ± Standard Deviation)	t
Gender	Male (40 people)	3.00±0.30	0.334
	Female (178 people)	2.98±0.42	
Specialized Teacher Education	Yes (98 people)	2.93±0.38	2.409**
	No (120 people)	2.62±0.39	

The findings (see Table 15) indicated significant differences in job satisfaction among special education teachers based on teaching experience and educational background (P < 0.05). Teachers with 6-10 years of experience had the lowest job satisfaction, while those with less than 2 years of experience had the highest. Teachers with master's degrees or higher had the lowest job satisfaction, while those with bachelor's degrees had the highest.

Differences in Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China Based on Educational Background, Teaching Experience, and Professional Title

Table 16: Differences in Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China Based on Educational Background, Teaching Experience, and Professional Title

Item	Category	Job Satisfaction (Mean ± Standard Deviation)	F
Teaching Experience	≤2 years (n=58)	3.36±0.19	0.000***
	3-5 years (n=56)	2.98±0.40	
	6-10 years (n=54)	2.85±0.40	
	11-16 years (n=20)	3.10±0.40	
	>16 years (n=30)	2.95±0.40	
Professional Title	Not rated (n=78)	2.98±0.37	0.94
	Junior (n=90)	2.99±0.46	
	Intermediate (n=40)	2.86±0.42	
	Senior (n=10)	2.96±0.41	
Educational Background	Junior college (n=67)	3.04±0.41	0.000***
	Bachelor's degree (n=148)	3.20±0.61	
	Master's degree and above (n=3)	2.81±0.33	

The findings (see Table 16) indicated significant differences in job satisfaction among special education teachers based on teaching experience and educational background (P < 0.05). Teachers with 6-10 years of experience had the lowest job satisfaction, while those with less than 2 years of experience had the highest. Teachers with master's degrees or higher had the lowest job satisfaction, while those with bachelor's degrees had the highest.

Correlation between Emotional Intelligence and Job Satisfaction among Special Education Teachers

Correlation Analysis between Emotional Intelligence and Job Satisfaction among Special Education Teachers

Table 17: Pearson Correlation Analysis between Emotional Intelligence and Job Satisfaction among Special Education Teachers (n=218)

Item	Job Satisfaction				
	Job Satisfaction	Self-actualization	Work Intensity	Salary Income	Leadership Relations
Understanding Own Emotions	0.786*	0.427	0.335	0.476**	0.166**
Managing Own Emotions	0.212**	0.333	0.26	0.236**	0.450**
Self-Motivation	0.315**	0.12	0.468	0.388**	0.923
Recognizing Others' Emotions	0.786**	0.287	0.854	0.715**	0.566**
Handling Interpersonal Relationships	0.273*	0.1	0.582	0.432**	0.19**

Note: The data in the table represent Pearson correlation coefficients. Asterisks indicate significance levels (*$p < 0.05$, **$p < 0.01$).

As shown in Table 17, there is a significant correlation between emotional intelligence and job satisfaction among special education teachers in ethnic minority regions of southwest China. Specifically, self-actualization dimensions such as recognizing own emotions, self-motivation, recognizing others' emotions, and managing interpersonal relationships are significantly correlated with job satisfaction. These dimensions have no significant correlation with salary income and work intensity. Self-motivation and managing interpersonal relationships are significantly correlated with leadership relations, while recognizing own emotions, managing self-emotions, recognizing others' emotions, and managing interpersonal relationships are significantly correlated with colleague relations.

Regression Analysis between Emotional Intelligence and Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China

Impact of Emotional Intelligence on Job Satisfaction

A simple regression analysis was conducted with emotional intelligence as the independent variable and job satisfaction as the dependent variable. The results are as follows.

Table 18: Impact of Emotional Intelligence on Job Satisfaction among Special Education Teachers in Ethnic Minority Regions of Southwest China (Non-standardized Coefficients)

	Non-standard Coefficient β	Standardized Coefficient	Standard Error β	T	SIG	R^2
Constant	0.584	0.200		2.917	0.004	0.552
Emotional Intelligence	0.751	0.048	0.743	15.486	0.000	
Constant	1.615	0.221		7.323	0.000	0.310
Understanding Own Emotions	0.472	0.050	0.557	9.371	0.000	
Constant	1.997	0.134		14.928	0.000	0.455
Managing Own Emotions	0.428	0.034	0.674	12.750	0.000	
Constant	3.498	0.427		8.186	0.000	0.221
Self-motivation	0.362	0.072	0.536	5.048	0.000	
Constant	1.824	0.225		8.097	0.000	0.258
Recognizing Others' Emotions	0.424	0.051	0.508	8.237	0.000	
Constant	2.517	0.182		13.861	0.000	0.174

| Handling Interpersonal Relationships | 0.308 | 0.048 | 0.418 | 6.420 | 0.000 | |

As shown in Table 18, a simple regression analysis was conducted with emotional intelligence as the independent variable and job satisfaction as the dependent variable. The results indicated that β=0.743, t=15.486, p<0.001, and R²=0.552>0.25, representing a large effect size. Therefore, emotional intelligence is a significant predictor of job satisfaction, accounting for 55.2% of the variance. This suggests that emotional intelligence has a significant impact on job satisfaction; specifically, higher emotional intelligence among special education teachers corresponds to higher job satisfaction.

When self-awareness of emotions was used as the independent variable and job satisfaction as the dependent variable in a simple regression analysis, the results showed that β=0.557, t=9.371, p<0.001, and R²=0.310>0.25, indicating a large effect size. Thus, self-awareness of emotions is a significant predictor of job satisfaction, explaining 31% of the variance.

With self-emotion management as the independent variable and job satisfaction as the dependent variable in a simple regression analysis, the results revealed that β=0.674, t=12.750, p<0.001, and R²=0.455>0.25, signifying a large effect size. Hence, self-emotion management is a significant predictor of job satisfaction, accounting for 45.5% of the variance.

In a simple regression analysis where self-motivation was the independent variable and job satisfaction was the dependent variable, the results demonstrated that β=0.536, t=5.048, p<0.001, and R²=0.221>0.25, representing a large effect size. Therefore, self-motivation is a significant predictor of job satisfaction, explaining 22.1% of the variance.

When awareness of others' emotions was taken as the independent variable and job satisfaction as the dependent variable in a simple regression analysis, the results indicated that β=0.508, t=8.237, p<0.001, and R²=0.258>0.25, signifying a large effect size. Thus, awareness of others' emotions is a significant predictor of job satisfaction, accounting for 25.8% of the variance. In another simple regression analysis with interpersonal relationship management as the independent variable and job satisfaction as the dependent variable, the results showed that β=0.418, t=6.420, p<0.001, and 0.09<R²=0.174<0.25, representing a medium effect size. Therefore, interpersonal relationship management is a significant predictor of job satisfaction, explaining 17.4% of the variance.

Among the five dimensions of emotional intelligence in special education teachers in southwestern ethnic minority regions, self-emotion has the greatest impact on job satisfaction. Only through effective self-emotion management can special education teachers accept their work environment from within, calmly handle work-related issues, and bear corresponding work pressures and intensities, thus achieving higher job satisfaction.

V. Discussion

Current Status Analysis of Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

The study found that the overall level of emotional intelligence of special education teachers is above average, aligning with the research results of Yang Xiaoping (2009) and Xiao Qin et al. (year not provided, but retained as per the original). Specifically, teachers scored highest in interpersonal skills, followed by self-motivation and the ability to recognize others' emotions, while self-awareness of emotions and self-emotion management abilities were relatively lower. This distribution characteristic may be closely related to the

frequent interpersonal interactions, complex emotional processing needs, and high self-motivation requirements in special education work.

Demographic Variable Differences in Emotional Intelligence of Special Education Teachers in Ethnic Minority Regions of Southwest China

Gender Differences: Female teachers scored significantly higher than male teachers on multiple dimensions of emotional intelligence, particularly in self-awareness of emotions, self-motivation, recognizing others' emotions, and interpersonal skills (P<0.05). This aligns with the research results of Brackett, Yang Xiaoping (2009), and Zhang Xiaoxue (2012), possibly attributed to women's inherent advantages in emotional expression, empathy, and emotion management.

Differences in Teaching Objects: The influence of teaching objects on emotional intelligence was not significant, but teachers of autistic children scored higher on certain dimensions, highlighting the special needs of autism teaching for emotional intelligence.

Age Differences: Age did not significantly affect emotional intelligence, contradicting the research of Konstantions (2003). This may be attributed to the popularization of emotional cognition knowledge in modern society and the high information acceptance of younger teachers.

Differences in Professional Background: Teachers graduated from normal universities significantly outperformed non-normal university teachers in multiple dimensions of emotional intelligence, especially in self-emotion management, self-motivation, and recognizing others' emotions (Wen Mengmeng, Lv Wenhui et al., 2019). This may be related to the systematic training and practical experience provided by normal university programs.

Differences in Professional Titles: Teachers with higher professional titles scored higher in dimensions such as self-awareness of emotions, self-motivation, recognizing others' emotions, and interpersonal skills, consistent with the research of Zhuge Fangran (2014). This reflects the recognition of teachers' comprehensive abilities in the criteria for promotion.

Differences in Teaching Experience: Teachers with longer teaching experience performed better in self-motivation and interpersonal skills (Law & Wong, 2002; Ge Jian, 2011; Xiao Qin, 2016; Zhang Xiaoxue, 2012). This may be related to the accumulation of work experience and a keen grasp of students' emotional characteristics.

Current Status Analysis of Job Satisfaction of Special Education Teachers in Ethnic Minority Regions of Southwest China

Overall, special education teachers have the lowest satisfaction with work intensity and salary, while satisfaction with self-actualization and colleague relationships is higher. This may be related to the economic conditions in the ethnic minority regions of southwest China and the specificity of special education work.

Differences in Normal University Graduation: Teachers graduated from normal universities have significantly higher job satisfaction than non-normal university teachers, possibly due to more professional training and a higher sense of professional identity.

Differences in Education Level, Teaching Experience, and Professional Titles: Education level, teaching experience, and professional titles all have significant impacts on job satisfaction. Teachers with master's degrees or above have the lowest satisfaction, while those with bachelor's degrees have the highest. Teachers with six to ten years of teaching experience have the lowest satisfaction, while those with less than two years have the highest. This may be related to career development stages, the gap between work expectations and reality, and other factors.

Relationship between Emotional Intelligence and Job Satisfaction of Special Education Teachers

This study found that the emotional intelligence of special education teachers significantly predicts their job satisfaction, with self-emotion management having the most significant impact. This aligns with the research of Yang Hong (2016), Li Mingjun (2011), and others, further confirming the importance of emotional intelligence in enhancing the job satisfaction of special education teachers.

VI.Research Conclusions, Suggestions, And Outlook

Research Conclusions

Based on an extensive review of relevant literature, this study delves into the current status of emotional intelligence and job satisfaction of special education teachers in ethnic minority regions of southwest China and their interrelationship, drawing the following main conclusions:

Questionnaire Development and Validation: The self-compiled questionnaire contains five dimensions with a total of 30 items, exhibiting good reliability and validity.

Current Status of Emotional Intelligence: Overall, it is at a moderate level, with significant differences across genders, professional backgrounds, professional titles, teaching hours, and teaching experience.

Current Status of Job Satisfaction: It is at a moderate level, with significant impacts from special education teachers' normal university background, teaching experience, and education level on job satisfaction. Relationship between Emotional Intelligence and Job Satisfaction: Emotional intelligence is a crucial factor affecting job satisfaction, with the total score and each dimension positively correlated with self-actualization, leadership relationships, and colleague relationships in job satisfaction.

Suggestions and Countermeasures

Pay Attention to and Enhance Emotional Intelligence: Strengthen teachers' abilities in emotion recognition, management, and application through training, development, and personalized guidance. Optimize Recruitment and Selection Mechanisms: Consider emotional intelligence as an important reference indicator.

Strengthen Management Systems and Incentive Mechanisms: Improve management systems and establish fair and reasonable incentive mechanisms.

Promote Comprehensive Teacher Development: Encourage teachers to expand their hobbies and interests and improve their quality of life.

Research Limitations and Outlook

Limited Research Scope: Future research should expand to other provinces and cities in the western region to enhance the representativeness and generalizability of the results. Single Research Method: Future research should combine qualitative research methods to deeply explore the underlying reasons behind the data.

Insufficient In-depth Analysis: Future research can introduce more advanced statistical methods to comprehensively analyze the complex relationship between emotional intelligence and job satisfaction.

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