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A Study on the Influence of Emotional Intelligence on Academic Satisfaction Among Chinese College Students: The Mediating Effect of Learning Engagement and the Moderating Effect of Social Support

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Abstract: ***This study primarily examines the interconnections among college students' Emotional Intelligence, Learning Engagement, Academic Satisfaction, and Social Support. A total of 535 college students participated in the survey utilizing the Emotional Intelligence Scale (EIS), the Learning Engagement Scale (UWES-S), the Perceived Social Support Scale (PSSS), and the University Version of Learning Satisfaction Scale. Findings indicate that the Emotional Intelligence of college students exhibits significant variability, with notable gender disparities. Emotional Intelligence is found to have a substantial positive influence on both Academic Satisfaction and Learning Engagement, while Learning Engagement further positively affects Academic Satisfaction. Additionally, Learning Engagement serves as a mediating factor between Emotional Intelligence and Academic Satisfaction, and Social Support acts as a moderating variable in the Emotional Intelligence-Academic Satisfaction dynamic.***

Keywords: Emotional Intelligence, Academic Satisfaction, Learning Engagement, Social Support, Chinese college students.

1. Research Theoretical Background

1.1 Research on Emotional Intelligence

Emotional Intelligence (EI), was first put forward by Barbara Leuner in 1966. Salovey & Mayer (1997) argued that Emotional Intelligence refers to an individual's ability to perceive, assess, and express their own and others' emotions and feelings, understand and regulate emotions and emotional knowledge to promote emotional and intellectual development, and utilize emotional information to facilitate thinking [1]. Goleman (1998) defined Emotional Intelligence as the ability to recognize one's own and others' emotions, manage one's own emotions, self-motivate, and handle emotions in interpersonal relationships [2]. Bar-On (1997) regarded Emotional Intelligence as the sum of a series of emotional, personality, and interpersonal abilities that influence an individual's ability to cope with environmental needs and stress [3]. Domestic scholar Xu Yuanli (2004), from a psychological perspective, defined Emotional Intelligence as the ability to process and handle emotional information and solve emotional problems [4]. Lu Jiamei (2005) held that Emotional Intelligence is an individual's ability to successfully complete a certain emotional activity or the ability to operate with emotions [5].

This study adopts the definition of Emotional Intelligence proposed by Salovey & Mayer (1997). Empirical studies by Petrides & Fumham (2001), Ciarrochi Deane & Anderson (2002), etc., indicated that four factors were analyzed from overall Emotional Intelligence through factor analysis: emotional perception, self-emotional management, others' emotional management, and emotional utilization [6].

Some domestic scholars conducted empirical studies and proposed the factor composition of Emotional Intelligence, constructing related Emotional Intelligence models. The research on the factor composition of Emotional Intelligence has been relatively mature. Fu Yiyao (2004) put forward four widely recognized factors, namely, the ability to perceive one's own and others' emotions, the ability to manage one's own and others' emotions, the ability to utilize emotions to make better decisions, and the ability to understand emotions [7]. Liu Yanmei (2008), taking Chinese college students as the research object, revised the Schutte Emotional Intelligence Scale and concluded that Emotional Intelligence includes the ability to evaluate one's own emotions, regulate one's own emotions, evaluate others' emotions, regulate others' emotions, and utilize emotions [8].

Some domestic scholars have conducted related studies on Emotional Intelligence and the psychological state, organizational behavior, and job performance of college students. Li Tao (2004) conducted a survey on college students in Wuhan, and the research results showed that Emotional Intelligence is significantly correlated with mental health and life event stress [9]. Zhang Huihua and Wang Hui (2011) explored the relationship between individual Emotional Intelligence and workplace performance using meta-analysis and found that Emotional Intelligence can effectively predict job performance [10]. Huang Shuangquan (2011), with college students as the research object, found that there is a certain correlation between college students' Emotional Intelligence and coping styles, subjective well-being [11].

Some scholars have also studied the differences in Emotional Intelligence among college students in terms of demographic variables. Zhang Jinfu and Xu Xiaoyan (2004) investigated and analyzed the characteristics of college students'

Emotional Intelligence and found significant differences in gender, major, and grade [12].

In conclusion, there are many studies on the factor composition of Emotional Intelligence and the relationship between Emotional Intelligence and psychological and social behavior in China. Most scholars consider Emotional Intelligence as a mediating variable to study its correlation with other variables. However, there are few literatures studying the relationship between college students' Emotional Intelligence and Learning engagement, Social Support, and Academic Satisfaction.

1.2 Research on Learning Engagement

The research on Learning Engagement has gradually entered the academic field. The earliest view on the theory of Learning Engagement was proposed by Tyler (1930). He believed that the temporal concept was the most important, and then led to Learning Engagement, with time being the most significant factor in effectively motivating students to complete their learning tasks. Fredricks (2004) reinterpreted Learning Engagement from a new perspective, arguing that it is the interaction result of multiple factors, including cognitive, emotional, and behavioral engagement [13].

Zhang Hongya et al. (2018) studied and found that the Learning Engagement of Science and Engineering college students significantly influences their learning gains [14]. Liu Lixia (2018) pointed out that the subjective well-being of high school students is significantly correlated with their Learning Engagement [15]. Lin Lin et al. (2019), with graduate students as the research object, found that there is a significant positive correlation between academic passion and each dimension of Learning Engagement [16]. Li Meng (2019), with high school students as the research object, showed that the teacher-student relationship of high school students is significantly positively correlated with their Learning Engagement [17]. Hu Xiaoyong et al. (2020) found that Learning Engagement has a direct positive impact on online learning performance [18]. Many scholars have also studied the correlation between Learning Engagement and Self-efficacy, professional satisfaction, and learning motivation, and all have significant correlations.

1.3 Research on Social Support

Different scholars have different understandings of Social Support. Scholar Cobb (1976) believed that Social Support is an individual's perception, mainly derived from the care and attention given by the members around the individual [19]. Sarason (1991) redefined Social Support, emphasizing that individuals can perceive and desire support, which usually comes from members of the social communication network [20]. Domestic scholar Xiao Shuiyuan (1994) proposed the concept of Social Support stating that Social Support cannot occur when an individual is alone but requires social interaction, emphasizing the interactive relationship of Social Support [21].

In conclusion, researchers in different fields have different definitions of Social Support. Social Support refers to the establishment of connections between an individual and the social network around them and the receipt of support in terms of information, emotions, etc., thereby enhancing social adaptability. Therefore, in this paper, Social Support is defined as including the support provided to college students by relatives, classmates, friends, etc., manifested as subjective support, objective support, and the utilization of subjective and objective support.

1.4 Research on Academic Satisfaction

The related research on satisfaction was initially conducted abroad, mainly focusing on the satisfaction of employees at work, with relatively less attention paid to the satisfaction of the student group. Nowadays, quality education focuses on the all-round development of students and emphasizes the need for enjoyment in learning. Therefore, special attention needs to be paid to the Academic Satisfaction of college students. However, there are currently few studies on the Academic Satisfaction of the college student group in domestic literature, and there is a lack of literature from authoritative publications, and the definition of Academic Satisfaction is also inconsistent. Zhang Xinggui (2003) proposed that Academic Satisfaction refers to students' overall feelings about the teaching situation of teachers, hardware facilities, and their own learning situation within the school [22]. Based on previous related studies on the theory of Academic Satisfaction, this paper defines Academic Satisfaction as the degree of satisfaction that students have with the hardware facilities, teachers' teaching, and their own learning process provided by the school during the learning process. It is the comparison between the gap between students' expectations for the learning process and their actual learning outcomes. If the gap between the learning expectations and the actual learning results is small, then the students' satisfaction with the entire learning process is high; if the gap is large, the satisfaction level is low. This study will explore the satisfaction level of Chinese college students with learning, hardware, and teachers' teaching from the three dimensions of Academic Satisfaction.

Based on the above considerations, this study will primarily select college students as subjects to explore the relationships among Emotional Intelligence, Learning Engagement, Social Support, and Academic Satisfaction. The research hypotheses are as follows:

H1: Emotional Intelligence has a significant positive impact on Academic Satisfaction

H2: Emotional Intelligence has a significant positive impact on Learning Engagement

H3: Learning Engagement has a significant positive impact on Academic Satisfaction

H4: Learning Engagement mediates the relationship between Emotional Intelligence and Academic Satisfaction

H5: Social Support moderates the relationship between Emotional Intelligence and Academic Satisfaction

Based on the above hypotheses, a theoretical model has been constructed (Figure 1).

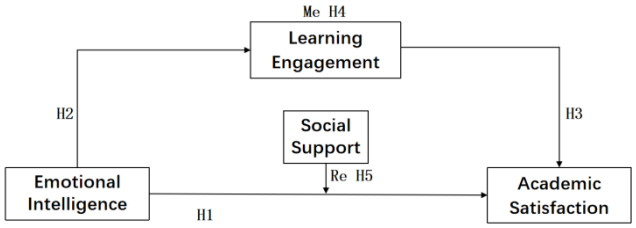

Figure 1: The Relational Model among Emotional Intelligence, Learning Engagement, Social Support and Academic Satisfaction

2. Research Participants and Methodology

2.1 Research Participants

A questionnaire was administered to 535 college students selected through random sampling. The sample comprised 275 males, constituting 51.4%, and 260 females, accounting for 48.6%. Among the participants, 129 were freshmen (24.1%), 143 sophomores (26.7%), 139 juniors (26.0%), and 124 seniors (23.2%). In terms of academic disciplines, 177 students were from Science and Engineering (33.1%), 191 from Literature and History (35.7%), 103 from Economic Management (19.3%), and 64 from other fields (12.0%). Geographically, 283 participants hailed from rural areas (52.9%), while 252 were from urban settings (47.1%). Additionally, 312 individuals were only children (58.3%), and 223 had siblings (41.7%). Finally, 180 respondents held student leadership positions (33.6%), while 355 did not (66.4%).

2.2 Research Methodology

This study utilizes measurement scales based on the five-point Likert scale for quantification, with reverse scoring applied to reverse questions.

2.2.1 Emotional Intelligence Scale

Based on the Emotional Intelligence model by Mayer & Salovey, American psychologist Schutte and others developed the Emotional Intelligence Scale (EIS) in 1998. Schutte conducted factor analysis on the scale, loading all items onto a single factor termed Emotional Intelligence. The EIS employs a five-point Likert scale and consists of 33 items. The Chinese version of the scale was introduced and translated by Professor Wang Caikang, and research confirmed that the EIS Chinese version possesses good reliability and validity, with a validity coefficient of 0.83. This study adopts Schutte's Emotional Intelligence Scale, selecting representatives from various grades of college students, conducting interviews with college students and experts, eliminating items that are difficult to understand or unclear in expression, and modifying the questionnaire. A pre-survey was conducted on the revised scale, eliminating items with factor loadings less than 0.4, communalities less than 0.5, and items exhibiting multicollinearity. Ultimately, this study formed an Emotional Intelligence Scale suitable for college students in general higher education institutions, consisting of 17 items: emotional perception (4 items), self-emotion management (5 items), others' emotion management (4 items), and emotional utilization (4 items). The analysis results show that the Cronbach's α coefficient is 0.794, the KMO value is 0.821, and the significance value of the sphericity test is 0, indicating that the scale has good reliability and validity.

2.2.2 Learning Engagement Scale

Based on in-depth research on Learning Engagement, Schaufeli (2002) developed the Learning Engagement Scale (UWES-S) based on the Work Engagement Scale, which contains 17 items encompassing three dimensions: vigor, dedication, and absorption. This scale is widely used. Domestic scholars have also conducted extensive research on Learning Engagement. Fang Laitan (2008) expanded on Schaufeli's definition, arguing that Learning Engagement emphasizes the actions individuals take to achieve their goals. Literature review indicates that the current measurement studies used to assess students' Learning Engagement in China primarily refer to and revise foreign measurement tools, with most assessments of students' Learning Engagement employing self-reporting methods. According to the needs of this study, we lean towards Schaufeli's interpretation of Learning Engagement; thus, we employ the revised Schaufeli Learning Engagement Scale by Fang Laitan, Shi Kan, and others.

2.2.3 Social Support Scale

Commonly used scales include the Interpersonal Support Evaluation List (ISSB) developed by Barrera in 1981, which has high quality and is widely applied to measure Social Support across various groups. In 1994, Taiwanese researcher Lu Luo extensively revised the ISSB questionnaire to create a Chinese version of the Social Support Behavior Questionnaire, which consists of 15 items divided into three dimensions: specific social support, emotional social support, and informational social support. In 1983, Sarason compiled the Social Support Questionnaire (SSQ), which contains 27 items with two factors: the number of Social Supports obtained by individuals (mainly involving objective support) and individuals' satisfaction with the support received (mainly involving subjective support). The Perceived Social Support Scale (PSSS), developed by scholar Zimet in 1987 and later translated into Chinese by Jiang Qianjin, consists of 12 items and classifies social support into three levels based on support sources: family support, friend support, and other support, and is now one of the widely used social support assessment scales. Additionally, in 1994, domestic scholar Xiao Shuiyuan compiled the Social Support Rating Scale (SSRS), which consists of 10 items divided into three aspects: objective support, subjective support, and the individual's utilization of support, making it one of the commonly used scales in the current field of Social Support Measurement, alongside the PSSS scale. Based on this study's definition of Social Support, the researcher will examine individuals' Social Support from the perspective of support sources; therefore, the Perceived Social Support Scale (PSSS) translated by Jiang Qianjin will be used to test college students.

2.2.4 Academic Satisfaction Scale

Foreign research on measuring satisfaction began early, with Betz initially analyzing academic satisfaction from six aspects: school hardware facilities, campus environment, educational management, teacher quality, teaching methods, learning

outcomes, and interpersonal relationships. Ma Fangting's master's thesis posits that students' Academic Satisfaction can be reflected through their gains in the learning process, teacher teaching quality, and interpersonal relationships among students. As her research progressed, she made corresponding modifications to the scale, reflecting students' Academic Satisfaction through the quality of courses arranged by the school, learning environment, teacher effectiveness, teaching attitude and capability. Tian Lan and Wang Xinqiang (2007) suggest that university students' Academic Satisfaction can be analyzed from the dimensions of professional skill development, learning satisfaction, and interests and specialties. Currently, when measuring satisfaction within the college student population, the Academic Satisfaction Scale compiled by Li Hongyu and Wang Rui (2009) is frequently applied. This scale is divided into three parts: learning satisfaction, teacher satisfaction, and hardware satisfaction. Research by Yi Xuele and Jiang Cheng (2014) indicates that analyzing graduate students' Academic Satisfaction from five aspects—curriculum, supervisor, academic, funding system, and management services—yields reliable results, and there is no significant relationship between different degree students' gender, major, and hometown factors and Academic Satisfaction. This article mainly employs Wang Rui's University Version of the Academic Satisfaction Scale to measure college students' Academic Satisfaction, where physical education major students are required to choose the most suitable answer based on their actual situation when filling out the scale.

2.3 Data Analysis

The systematic analysis was conducted using SPSS 25.0 for statistical data processing and AMOS 24.0 for structural equation modeling, employing techniques such as sample comparisons, variance analysis, and regression analysis.

3. Data Analysis

3.1 Reliability Analysis

Reliability test is a method to judge whether the results of the questionnaire answered by the respondents at different times and places are consistent and reliable. In statistics, the consistency and reliability of the questionnaire are usually measured by Cronbach coefficient. The value range of Cronbach coefficient is generally required to be between 0 and 1. If the Cronbach coefficient is greater than 0.9, the internal reliability of the scale is considered to be high; If the Cronbach coefficient is greater than 0.7 (less than 0.9), it is considered that the internal reliability is good; If the Cronbach coefficient is greater than 0.5 (less than 0.7), the internal reliability is considered acceptable; If the Cronbach coefficient is less than 0.5, it is considered that there are great problems in the scale design, and it should be redesigned. This study uses SPSS 25.0 software to make statistics on the Cronbach coefficient of each variable, so as to determine whether the empirical data recovered by each variable meets the requirements of internal consistency and reliability. The reliability of the five scales was good. The value of Cronbach coefficient of the scale cannot be further improved after deleting any question. Therefore, it is not necessary to delete the question item.

3.2 Validity Analysis

This study uses Amos24.0 software to carry out confirmatory factor analysis on the scale, mainly to verify the convergent validity and discriminant validity of the scale. Convergence validity means that items measuring the same potential traits will fall on the same factor plane, and the measured values between items are highly correlated. It is emphasized that the measurement items that should have been under the same factor are indeed under the same factor, which mainly depends on the relevance of several topics in the same dimension. Discriminant validity refers to the low correlation or significant difference between the potential traits represented by the facet and those represented by other facets. It is emphasized that the measurement items that should not be under the same factor are really not under the same factor. It mainly depends on whether the differences between different dimensions exist. Generally, the convergent validity of the scale is determined by factor load, composite reliability scale (CR) and average variance extraction scale (AVE), and the discriminant validity of the scale is determined by comparing the correlation coefficient of latent variables with the square root of Ave. Before validity analysis, it is necessary to test the fitness of the model. There are many kinds of indicators for the fitness of structural equation models. In general, three types of fitting indexes, absolute fitting index, value added fitting index and parsimony fitting index, are selected to test the fitness of the model. In this study, X2/DF, RMSEA, NFI, RFI, IFI, TLI, CFI, etc. were selected as the evaluation indexes of model fitness test. In general, the indicators of the five scales fit well, the convergence validity is up to standard, and the discriminant validity between variables is good.

3.3 Descriptive Analysis

In the descriptive analysis, the minimum, maximum, mean, standard deviation and other information of the variable are provided to facilitate understanding the score of the research variable. Secondly, skewness and kurtosis indicators are provided to understand whether the variable approximately follows the normal distribution. Generally, when the absolute value of skewness is less than 3 and the absolute value of kurtosis is less than 10, it indicates that the observed variable approximately follows the normal distribution. Emotional Intelligence, Academic Satisfaction, Learning Engagement, Social Support and other variables and their dimensions are greater than the theoretical median value of 3, indicating that the scores of these variables are in the upper middle level. The absolute values of skewness of each variable and its dimension are less than 3, and the absolute values of kurtosis are less than 10, indicating that these variables are approximately subject to normal distribution.

3.4 Difference Analysis

In order to verify whether different demographic variables have significant differences on the main variables, the independent sample t-test method is used for the two categories of demographic variables, and the test statistic is t-statistic; For those with multiple demographic variables, one-way ANOVA was used, and the test statistic was F statistic. If the p value corresponding to t/F is less than 0.05, there is a significant difference, on the contrary, there is no

significant difference.

There were significant differences in Emotional Intelligence and Learning Engagement between different genders ($p<0.05$). Specifically, boys scored significantly lower in Emotional Intelligence and Learning Engagement than girls. There were no significant differences in Academic Satisfaction and Social Support between different genders ($p>0.05$).

There were significant differences in Emotional Intelligence among different grades ($f=3.259$, $p<0.05$), and Freshmen's score in Emotional Intelligence was significantly lower than that of juniors and seniors. Sophomores scored significantly lower in Emotional Intelligence than seniors. There were significant differences in Social Support among different grades ($f=4.023$, $p<0.01$), and the score of senior students in Social Support was significantly higher than that of freshmen and sophomores. There was no significant difference in Academic Satisfaction and Learning Engagement among different grades ($p>0.05$).

There were significant differences in Emotional Intelligence among different majors ($f=4.120$, $p<0.01$). The score of Emotional Intelligence in Science and Engineering was significantly lower than that in Literature and History and Economics and Management. The score of Economic Management in Emotional Intelligence was significantly higher than that of others. There were no significant differences in Academic Satisfaction, Learning Engagement and Social Support among different grades ($p>0.05$).

There were significant differences in Emotional Intelligence, Learning Engagement and Social Support among different family places ($p<0.05$). Specifically, the scores of Emotional Intelligence, Learning Engagement and Social Support in rural areas were significantly lower than those in urban areas. There was no significant difference in Academic Satisfaction between different family places ($p>0.05$).

Whether the only child or not has no significant difference in Emotional Intelligence, Academic Satisfaction, Learning Engagement and Social Support ($p>0.05$). There were no significant differences in Emotional Intelligence, Academic Satisfaction, Learning Engagement and Social Support between different father and mother identities ($p>0.05$).

There were significant differences in Emotional Intelligence, Academic Satisfaction, Learning Engagement and Social Support between student cadres and non-student cadres ($p<0.05$). Specifically, student cadres scored significantly higher than non-student cadres in Emotional Intelligence, Academic Satisfaction, Learning Engagement and Social Support.

The results of different courses have significant differences in the ranking of Emotional Intelligence in this class ($f=4.433$, $p<0.01$). It can be seen that the scores of Emotional Intelligence of students with lower grades are significantly lower than those of students with lower middle grades, middle grades, upper middle grades and upper middle grades. The Academic Satisfaction scores of different courses in this class rank have significant differences ($f=3.022$, $p<0.05$). The Academic Satisfaction scores of students with lower grades are significantly lower than those of students with medium, above medium and above medium grades. The academic performance of different courses in this class ranking has a significant difference in Learning Engagement ($f=7.615$, $p<0.001$). The comparison after engagement shows that the scores of Learning Engagement of students with lower grades are significantly lower than those of students with lower middle grades, middle grades, upper middle grades and upper middle grades. The scores of Learning Engagement of students with lower, middle and upper middle scores were significantly lower than those of students with higher middle scores. There was no significant difference in Social Support between the grades of different courses in this class ($p>0.05$).

3.5 Correlation Analysis

In order to verify whether the variables involved in this study have a correlation relationship, this study uses Pearson correlation analysis method. If it can pass the statistical significance test, it shows that there is a significant correlation between the variables, which provides a statistical basis for the subsequent regression analysis. The value of correlation coefficient is between -1 and 1. The closer it is to 1, the stronger the positive correlation between variables is. On the contrary, the closer it is to -1, the stronger the negative correlation between variables is. Emotional Intelligence, Learning Engagement and Academic Satisfaction were significantly positively correlated, and the correlation coefficients were 0.470, 0.483 and 0.508, respectively. There was a significant positive correlation between Emotional Intelligence and Learning Engagement, and the correlation coefficient was 0.452. There were significant positive correlations among Emotional Intelligence, Academic Satisfaction and Learning Engagement.

3.6 Regression Analysis

In the regression analysis of each variable on Academic Satisfaction, Emotional Intelligence and Learning Engagement are the independent variables, and Academic Satisfaction is the dependent variable. Emotional Intelligence has a significant positive impact on Academic Satisfaction ($\beta=0.220$, $p<0.001$). Learning Engagement has a significant positive impact on Academic Satisfaction ($\beta=0.297$, $p<0.001$). In the regression analysis of Emotional Intelligence on Learning Engagement, Emotional Intelligence is the independent variable and Learning Engagement is the dependent variable. Emotional Intelligence had a significant positive effect on Learning Engagement ($\beta=0.452$, $p<0.001$).

3.7 Regulation Effect Test

Table 1 is a test table for the moderating effect of Social Support in the relationship between Emotional Intelligence and Academic Satisfaction, with Emotional Intelligence as the independent variable, Social Support as the moderating variable, and Academic Satisfaction as the dependent variable. In order to avoid multidisciplinary, the independent variable and the regulating variable are treated centrally and the interactive term is generated before the regulatory effect is tested. It can be seen from the table that the interaction of Emotional Intelligence and Social Support has a significant impact on Academic Satisfaction ($\beta=0.129$, $p<0.001$).

Table 1: test of the moderating effect of Social Support on the relationship between Emotional Intelligence and Academic Satisfaction

	Non standardized coefficient		Standardization coefficient	t	Significance	Collinearity statistics	
	B	Standard error	Beta			tolerance	VIF
(Constant)	0.646	0.236		2.737	0.006		
Emotional intelligence	0.575	0.055	0.405	10.480	0.000	0.921	1.085
Social support	0.251	0.049	0.196	5.148	0.000	0.951	1.051
Emotional intelligence ×social support	0.234	0.069	0.129	3.415	0.001	0.967	1.034
R^2=0.271 adj-R^2=0.267 F=65.742 P=0.000							

Dependent Variable: Academic Satisfaction

4. Conclusion

The results indicated that female students scored significantly higher than their male counterparts in both Emotional Intelligence and Learning Engagement. Notable disparities in Emotional Intelligence were observed across different academic levels, with first-year students demonstrating markedly lower Emotional Intelligence scores compared to juniors and seniors. Additionally, sophomores exhibited significantly lower Emotional Intelligence than seniors. Social Support scores also varied significantly by grade, revealing that seniors had considerably higher Social Support scores than both freshmen and sophomores. Furthermore, students majoring in Science and Engineering scored significantly lower in Emotional Intelligence compared to those in Literature, History, and Economics Management, with Economics Management students achieving the highest Emotional Intelligence scores. Significant differences in Emotional Intelligence, Learning Engagement, and Social Support were identified based on students' familial backgrounds, with rural students displaying considerably lower scores than their urban counterparts. Student leaders outperformed non-leaders in terms of Emotional Intelligence, Academic Satisfaction, Learning Engagement, and Social Support. The findings underscore an uneven development of Emotional Intelligence among college students, marked by significant gender differences. Emotional Intelligence positively correlates with Academic Satisfaction, while Learning Engagement also positively influences Academic Satisfaction. Learning Engagement serves as a mediator between Emotional Intelligence and Academic Satisfaction, whereas Social Support moderates the relationship between Emotional Intelligence and Academic Satisfaction.

5. Discussion

The accelerated pace of learning and living has caused some college students to experience enormous emotional and psychological pressure, leading to issues such as anxiety, irritability, insomnia, social phobia, and isolation, thereby diminishing their enthusiasm and initiative for learning. Higher education institutions need to establish a mechanism that combines Emotional Intelligence assessment and counseling, promoting awareness for students to actively participate in assessments. This can help to timely identify the issues present in college students' Emotional Intelligence and allow for a comprehensive summary to propose solutions, thus providing more assistance to college students. College students' Emotional Intelligence can positively predict their Learning Engagement; a higher level of Emotional Intelligence significantly enhances Learning Engagement levels.

Colleges provide learning environments, facilities, and resources that are crucial for enhancing students' Academic Satisfaction. Therefore, higher education institutions should strengthen the cultivation environment for college students, improving both hardware and software facilities, and continuously enhancing the overall quality of the learning atmosphere. Firstly, higher education institutions should increase financial investment to improve internal hardware facilities. Secondly, they should create a better relational atmosphere between teachers and students, organizing them together for more communication and interaction after class. Higher education is not merely about solitary contemplation; it requires self-improvement through interaction and engagement, making good use of various resources provided by the school to lay a solid foundation for learning. Therefore, schools need to enhance their teaching awareness, enrich and improve both soft and hard educational resources, meet students' needs, and support the enhancement of students' Academic Satisfaction.

At the same time, the cultivation of Emotional Intelligence should be integrated into higher education, improving college students' Emotional Intelligence levels, promoting their Learning Engagement, and increasing their Academic Satisfaction. When facing academic pressure, college students with high Social Support have more resources to cope, which leads to higher levels of Learning Engagement. Thus, strengthening Social Support can enhance college students' Learning Engagement levels, thereby improving their Academic Satisfaction.

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