

An Analysis of the Structural Relationships Among Parental Attachment, Basic Psychological Needs, Career Identity and Depression of Chinese College Students in Korea

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Purpose: Research in the acculturation domain has noted the influence of parental attachment on depression among overseas students. However, an almost negligible effort has been made to investigate how it happens. This study aims to explore the relationship between parental attachment, basic psychological needs, career identity and depression of Chinese overseas students, while focusing on the mechanisms underlying such relationship.

Methods: A total of 335 Chinese overseas students were asked to fill out a questionnaire, and the data of these samples were utilized to test the moderated mediation hypotheses through SPSS and AMOS.

Results: The results indicate that parental attachment of Chinese overseas students has a negative effect on depression, while basic psychological needs play a part in mediating between parental attachment and depression. In addition, career identity moderates the mediating effect of basic psychological needs between parental attachment and depression.

Conclusion: To the best of the authors' knowledge, this study has been one of the first attempts to reveal the influence mechanism of basic psychological needs and career identity on the relationship between parental attachment and depression of Chinese overseas students. It is expected that the preliminary findings of this study will encourage more research on the psychological mechanisms of Chinese overseas students, so as to provide a more comprehensive picture of the interaction between parental attachment and depression of overseas students studying in different countries with various backgrounds.

Keywords: parental attachment, basic psychological needs, career identity, depression

Introduction

With our society becoming more globalized, South Korea is also transforming itself into a multicultural and multiracial society under this trend. Due to the inflow of foreign laborers and the increase of international marriages, the number of foreigners living in South Korea is increasing year by year, and this country has become a hot destination for studying abroad.¹ To define overseas students, it refers to those who have spent over six months studying in a foreign institute for training, research or education.² At present, most of the foreign students in South Korean universities come from Asia. Among them, Chinese students account for the vast majority as the main force of education consumers.

It is recognized that college students are in the transitional period from teenage to adulthood, which is a key stage to prepare for being an adult. In this period, they would develop the ability to deal with the social, psychological and personal problems in life.^{3,4} Recently, the incidence of depression among young people in their twenties has seen a gradual increase.⁵ College students who are preparing for their entry into the society tend to suffer from a negative impact on their mental health, due to the stress caused by academic, economic and employment problems.⁶ China once suffered from an exponential growth of population, which hindered the country's national wealth and economic

efficiency.⁷ Therefore, the family planning policy was adopted in China in 1979, and each family was allowed to have just one child. Under this background, parents began to hold high expectation to their only child and it causes pressure. Particularly for those Chinese overseas students who have to face an alien environment, they are more likely to suffer from depression than local Korean students because of their multiplied difficulties in adapting to college life.⁷ These psychological and emotional problems would produce a negative impact on their studies, and this may affect their adult life and mental health in the near future.⁸

Researchers have previously revealed that, the factors leading to depression of college students can be divided into environmental factors and psychological factors, and the former includes social support, family relationship and parental attachment. Especially on parental attachment, researchers have done substantial research.⁶ As for attachment, it refers to a lasting emotional bond with the attached object through positive, sustained and emotional interactions.⁹ And parental attachment is an important reflection of individuals' development, lifestyle and emotional characteristics.

Therefore, Chinese overseas students in Korea are very likely to be affected psychologically by the parental attachment they developed before their studying abroad. Since they must start a new life independently, their challenge during this period is subject to their psychological separation. Theoretically, the relationships between adolescents and parents are under substantial changes during adolescence, due to the adolescent becoming more mature. Therefore, parental attachment plays a crucial role especially during someone's transition from high school to college.¹⁰ If unstable attachment has been formed already, the problem may be exacerbated when Chinese overseas students are away from their parents. Without the companion of parents as their primary caregivers and supporters, they may feel emotionally unstable, depressed, lonely and anxious, or have difficulties adjusting to new environments. This could decrease their satisfaction with their experience of studying abroad.¹¹ Based on previous studies targeting Chinese students, it can be predicted that Chinese students' degree of parental attachment is correlated to the degree of their depression. That is, more stable parental attachment would lead to lower degree of depression, while unstable attachment can increase the degree of depression and negative emotions, thus lowering the ability of self-emotional regulation.^{12,13}

It has been explained by the Self-Determination Theory that, there is an association between the satisfaction degree of basic psychological needs and ill-being and well-being. Self-determination theory is a macro-theory of human motivation, psychological growth, and mental wellness that emphasizes optimal functioning and psychological health. Grounded in basic psychological needs theory, which is a sub-theory of Self-Determination Theory, the satisfaction of basic psychological needs is considered as a promoter for personal development and growth, and it could enhance the quality of involvement.¹⁴ The basic psychological needs involve the need for autonomy, need for competence and need for relatedness, all of which are essential to ensure the best development of mankind. Deci and Ryan pointed out that, when basic psychological needs are sufficiently satisfied, it helps to maintain a better mental health and to achieve the development of behaviors and characters.¹⁵ Moreover, prior researchers have noted that the support of social environment, especially parental attachment and relationship, would contribute to the satisfaction of the basic psychological needs. It is also recognized that individuals with stable attachment tend to be more satisfied with their basic psychological needs.¹⁶ In contrast, unstable attachment types would have a negative correlation with the satisfaction of basic psychological needs.¹⁷

Previous studies show that basic psychological needs have a negative-going impact on depression. When such needs are met in life, it will benefit individuals' growth as well as their physical and mental health. Otherwise, it would constantly drain people's energy, increase their frustration and depression, and even lead them to mental illness. Especially, when people are frequently frustrated with their basic psychological needs in daily life, such dissatisfaction can become a factor causing depression.¹⁸ Among the studies on the effects of parental attachment on basic psychological needs, one was conducted by La Guardia, Tyan, Couchman and Deci, who found that a secure feeling of attachment was positively associated with college students' satisfaction of their basic psychological needs for autonomy, competence, and relatedness. In contrast, adolescents could form dysfunctional bonds with their parents due to unstable attachment relationship between them. It can limit adolescents' freedom to make self-determinations about their behavior and affect their interpersonal relationships with peers. In the long term, they would be subject to depression with a persistent failure to meet their basic psychological needs.¹⁹ That is, unstable parental attachment can not only directly

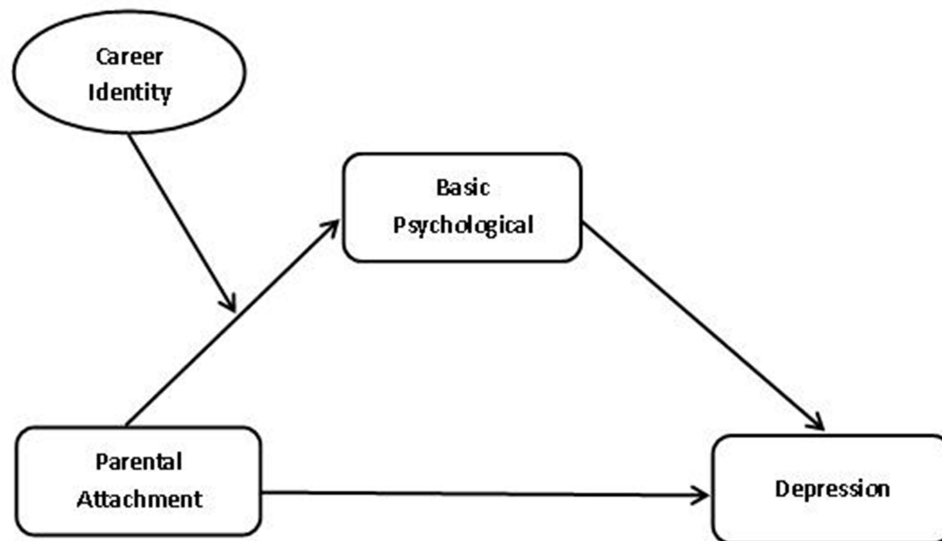


Figure 1 Proposed theoretical model.

put Chinese overseas students into depression, but also indirectly cause their depression via basic psychological needs as a mediating variable.

Moreover, the college period is crucial for people's future progress and success, and the cultivation of career identity is a very important task in the development of life.²⁰ As for career identity, it refers to a blueprint in which the individual links their own competencies, interests and goals with acceptable career roles, and it enables people to explore, plan and decide their career based on the understanding of the occupational world and the world of themselves.²¹ Higher degree of career identity will lead to higher academic achievements, more active school life and better communication with others, thus making the physical and psychological conditions more stable and healthier.²² Besides, the stronger the sense of accomplishment brought by career identity, the lower the degree of depression.²³

According to previous research, career identity is positively related to basic psychological needs, and a better self-understanding of the career could promote the development of autonomy and competence.^{24–26} Erikson also emphasized that, for college students who gain respect for their individuality and psychological independence from their parents, they will form a kind of self-ego that could affect their self-image related to career identity, and it would in turn enhance their level of control over self-determination.²⁷ Therefore, while being affected by parental attachment, the psychological needs of Chinese overseas students are also related to their career identity, and those with higher levels of career identity tend to be more satisfied with their basic psychological needs. In this way, it is hypothesized that career identity and parental attachment have a combined action on basic psychological needs. That is, career identity can buffer the effect of unstable parental attachment on basic psychological needs.

The Present Study

This study aims to test a simple mediation and a moderated mediation for the relationship between parental attachment and depression of Chinese overseas students. Specific research hypotheses are as follows: 1. Parental attachment shows a negative effect on depression. 2. Basic psychological needs will mediate the link between parental attachment and depression. 3. Career identity moderates the link between parental attachment and depression via basic psychological needs (see Figure 1).

Methods

Participants and Procedures

In this study, a questionnaire survey was conducted among Chinese undergraduate and postgraduate students through purpose judgmental sampling, which is a method that researchers select representative samples after making a judgment

on research objects through subjective consciousness. Therefore, in order to select a sample that is more representative of Chinese overseas students, this study considered the factors such as gender, learning phase, language proficiency in Korean, only child or not, duration in South Korea and so on. The questionnaire was carried out by online and offline surveys. For the offline survey, it was made directly in the classes or courses attended by Chinese overseas students. We first explained the study as well as the confidentiality measures and reimbursement for participation, and then asked the students to fill out the questionnaires after the informed consent was obtained from them. And the online survey was conducted by means of questionnaires filled through hot social media platforms. It required about 20 minutes to fill out a copy, and structural questionnaire was adopted in the survey. A total of 335 copies were collected, but 33 responses that showed missing information were dropped by us. In this manner, data from 302 Chinese overseas students, whose mean age was 23.78 years ($SD = 1.29$), were used to test the hypotheses.

In the collected samples, females accounted for 56.3%, and undergraduates constituted 60.9% of all. The proportion of participants who ranked their language proficiency as “medium” was the highest, accounting for 32.8%, and those as only child accounted for 64.9%. As for the duration of studying in South Korea, “1–3 years” accounted for 40.7%; “3–5 years” for 21.5%; “more than 5 years” for 19.5%; and “less than one year” for 18.2%.

Measures

Since these participants were native Chinese speakers, all items for measures were arranged in Chinese. Only Chinese scales and the Chinese versions of English scales were adopted in this study. The English scales were already translated into Chinese by professors specialized in psychology, and the translated versions have been verified and published by peer-reviewed journals in China.

Parental Attachment Scale

Armsden and Greenberg developed two parallel versions of the inventory of peer and parental attachment (IPPA). The parent version contained 28 items and the peer version contained 25 items.¹⁷ In this study, parent version was used to measure the parental attachment of Chinese overseas students. Without a separation of mother and father items, the original version’s overall focus on parents was applied in this study. This parental attachment scale measures the degree of attachment mainly from three aspects: behavior, cognition and affection towards parents. And the three sub-variables are Alienation, communication and trust. With the score for negative items being reversed, the parental attachment scores for parent scale were calculated by adding up the three subscale scores, and we measured their responses with a five-point Likert scale ranging from 1= completely disagree to 5= completely agree. The higher the total score for all questions, the more stable the attachment relationship between children and parents. Examples of the items included “I think my parents are amazing” and “my parents respect my opinions and ideas”. For the parental attachment scale in this study, the reliability of “alienation” was Cronbach $\alpha = 0.845$; that of “communication” was Cronbach $\alpha = 0.921$; and that of “trust” was Cronbach $\alpha = 0.879$. The overall reliability of parental attachment was Cronbach $\alpha = 0.937$.

Basic Psychological Needs Scale

BPNS (Basic Psychological Needs Scale) was developed by Ryan and Deci, and it includes three sub-fields: autonomy, competence and relatedness.¹⁴ The scale consists of three sub-fields, each with 6 questions, so there are totally 18 questions. The answer options were scored by five-point Likert scale ranging from 1= completely disagree to 5= completely agree. Higher score indicated higher degree of satisfaction with the basic psychological needs in the field. There were items such as “I’m the boss of my own life” and “I think I’m pretty good”. In this study, the reliability of “competence” was Cronbach $\alpha = 0.922$; that of “autonomy” was Cronbach $\alpha = 0.872$; and that of “relatedness” was Cronbach $\alpha = 0.921$. The overall reliability of basic psychological needs was Cronbach $\alpha = 0.925$.

Career Identity Scale

Holland, Daiger and Power developed the MVS (My Vocation Situation) for measuring career identity.²⁸ Through this scale, we can evaluate whether our career planning is clarified or not. The scale consists of three sub-fields: self-competence identification, understanding of vocational information, and self-understanding. There are totally 18 questions, and all

answer options were scored by a four-point Likert scale ranging from 1= completely disagree to 4= completely agree. The higher the total score, the more clarified identification of one's own competence, personality, interests, goals and so on with higher level of career identity. Examples of the items included "I can determine what I choose to do with my life" and "I know my own strengths and weaknesses". In this study, the reliability of "self-competence identification" was Cronbach $\alpha = 0.873$; that of "understanding of vocational information" was Cronbach $\alpha = 0.952$; and that of "self-understanding" was Cronbach $\alpha = 0.965$. The overall reliability of career identity was Cronbach $\alpha = 0.980$.

Depression Inventory

To measure depression, the BDI (Beck Depression Inventory) developed by Beck was used in this study.²⁹ It consists of 21 questions with 4 sub-variables: emotional manifestations, cognitive manifestations, motivation manifestations, and physiological manifestations. The total score ranges from 0 to 63, and higher score indicates more serious depression. Examples of the items included "I'm bored with everything" and "I hate myself". For the Depression Inventory in this study, the reliability of "emotional manifestations" was Cronbach $\alpha = 0.909$; that of "cognitive manifestations" was Cronbach $\alpha = 0.926$; that of "motivation manifestations" was Cronbach $\alpha = 0.895$; and that of "physiological manifestations" was Cronbach $\alpha = 0.895$. The overall reliability of depression inventory was Cronbach $\alpha = 0.969$.

Control Variables

Previous studies have shown that, gender has an association with career identity.³⁰ With a consideration to this bias, gender was included as a control variable in the study.

Results

Normality Test

SPSS 23.0 was used for a normality test of the data. If the absolute values of Kurtosis and Skewness in the course model do not exceed 7 and 2 respectively, then the hypothesis of multivariate normality would be proved.³¹ The analysis results show that, all variables were subject to the Kurtosis of below 7 and the Skewness of below 2, so it can be assumed that the normal distribution was satisfied.

Confirmatory Factor Analyses (CFA)

In this study, we ran CFA in Amos 23.0 for an analysis to verify the validity of observed variables composed of latent variable. According to Hu and Bentler, we can observe the goodness-of-fit indexes, for example, Normed χ^2 (<2), TLI (>0.9), CFI (>0.9), GFI (>0.9), RMSEA (<0.08), in order to judge whether there is a proper fitness.³² Above all, if the Normalized χ^2 value is less than 3, it would be considered as fitted. Since the Normed χ^2 value for this model was 2.112, it can be judged that there was proper fitness. Besides, SRMR was 0.0345; RMSEA was 0.061 (<0.08); GFI was 0.945; CFI was 0.979; and TLI was 0.973. All of them were greater than 0.90, so it can be judged that the goodness-of-fit index of the model is generally good. The results are shown in Table 1.

Descriptive Statistics

Table 2 demonstrates the mean, SD, and bivariate correlations among the variables. It can be seen that the correlation between the variables is statistically significant, and the correlation coefficient shows a range of 0.393–0.659 at the significance level ($p < 0.01$). The coefficients of correlation between variables were all less than 0.7, so it was judged that there was no variable suspected of multicollinearity. Parental attachment was positively correlated with basic psychological needs ($r = 0.659$, $p < 0.01$) and career identity ($r = 0.471$, $p < 0.01$). Such result shows that, higher degree of

Table 1 The Goodness-of-Fit Index of Measurement Model

Model	CMIN/DF	SRMR	GFI	CFI	TLI	RMSEA
Statistic values	2.112	0.0345	0.945	0.979	0.973	0.061

Table 2 Descriptive Statistics and Correlation Coefficients

Variables	Mean	SD	1	2	3	4
1. Parental Attachment	3.44	0.90	1			
2. Basic Psychological Needs	3.53	0.90	0.659**	1		
3. Career Identity	2.43	0.70	0.471**	0.533**	1	
4. Depression	1.10	0.78	-0.393**	-0.412**	-0.600**	1

Note: ** $p < 0.01$.

Abbreviation: SD, standard deviation.

parental attachment indicates higher level of basic psychological needs and career identity for Chinese overseas students in South Korea. In contrast, there is a negative correlation between parental attachment and depression ($r = -0.393$, $p < 0.01$). This result indicates that higher degree of parental attachment leads to less chance for these overseas students to suffer from depression. The basic psychological needs are positively correlated with career identity ($r = 0.530$, $p < 0.01$), but negatively correlated with depression ($r = -0.412$, $p < 0.01$). It indicates that, higher degree of basic psychological needs can lead to higher level of career identity and less experience of depression. At last, career identity was negatively correlated with depression ($r = -0.600$, $p < 0.01$), which indicates that a high degree of career identity can reduce the chance of depression suffered by Chinese overseas students in South Korea.

Moderated Mediation Effects Test

Following Wen and Ye's method for testing moderated mediation models,³³ we used the PROCESS macro for SPSS, extracted 5000 resamples for a bootstrapping analysis and calculating 95% confidence intervals (CI) to test our proposed model.

The first step was to test the mediating effect. After controlling for gender, we examined the mediating effect of basic psychological needs in the relationship between parental attachment and depression. The results in Table 3 show that the direct effect of parental attachment on depression was significant, $\beta = -0.345$, 95% CI [-0.443, -0.248], and the mediating effect of basic psychological needs was significant, $\beta = -0.286$, 95% CI [-0.383, -0.190]. Thus, parental attachment directly predicted depression and also indirectly affected depression via basic psychological needs. Therefore, Hypotheses 1 and 2 were supported.

Having established the mediation effects model, we then tested the moderating role of career identity. Results show that after we had added career identity to the model, the product of parental attachment \times career identity had a significant predictive effect on basic psychological needs ($\beta = -0.140^*$), indicating that career Identity regulated the influence of parental attachment on basic psychological needs (see Table 4). Therefore, career identity significantly moderated the indirect mediating paths between parental attachment and depression, thereby forming a moderated mediation effects model. Thus, hypothesis 3 was supported.

Table 3 Mediation Effects Test Results

Outcome Variable	Predictor Variable	β	t-Value	R ²	F
Basic Psychological Needs	Gender	-0.117	-1.453	0.416	106.477***
	Parental Attachment	0.653	14.579***		
Depression	Gender	0.187	2.747**	0.444	79.228***
	Parental Attachment	-0.345	-6.967***		
	Basic Psychological Needs	-0.286	-5.853***		

Note: ** $p < 0.01$, *** $p < 0.001$.

Table 4 Moderated Mediation Effects Test Results

Predictor	β	t-Value	p-value	F	R ²	
Gender	-0.115	-1.524	0.128	70.246	0.486	
Parental Attachment	0.504	10.165	0.000			
Career Identity	0.330	5.122	0.000			
Parental Attachment×Career Identity	-0.140	-2.507	0.013			
Career Identity	Conditional Effect	SE	t-Value	p-value	LLCI	ULCI
Low	0.602	0.064	9.370	0.000	0.476	0.729
High	0.406	0.062	6.524	0.000	0.283	0.528

Abbreviations: LLCI, lower limit of 95% CI; ULCI, upper limit of 95% CI.

Results of a simple slope test show that for Chinese overseas students with low career identity, basic psychological needs increased significantly ($\beta=0.602$, $p<0.001$, 95% CI =0.476–0.729), with an increase in parental attachment. Similarly, for those with high career identity, basic psychological needs also increased significantly ($\beta=0.406$, $p<0.001$, 95% CI =0.283–0.528) with increased parental attachment. Therefore, career identity had a significant moderating effect on the Chinese overseas students' parental attachment, and basic psychological needs (see Figure 2).

Discussion

The purpose of this study is to find out the relationship between parental attachment, basic psychological needs, career identity and depression, so as to understand the psychological and emotional difficulties experienced by Chinese overseas students in Korea, and then help them better adapt to the life of studying abroad.

First, parental attachment of Chinese overseas students has a negative effect on depression. It means that a high degree of mutual trust and autonomy in communication with parents will reduce the depression suffered by these students. This is consistent with the conclusion of a previous research conducted by Yoon and Lee, that is, the higher the degree of parental attachment of college students, the lower the degree of their depression.¹² According to these results, when the attachment relationship is more stable, Chinese overseas students are less depressive. The formation, collapse and maintenance of attachment can cause strong emotional reactions, which will play a protective role against external influences.¹² From this point of view, emotion can be regarded as the central domain of attachment. And problems can arise in people's self-representation due to the instability of initial attachment for objects.

Second, basic psychological needs play a part in mediating between parental attachment and depression. It means that parental attachment not only directly affects the depression of Chinese overseas students, but also has an indirect effect on depression via basic psychological needs. According to the research results of previous researchers, more stable

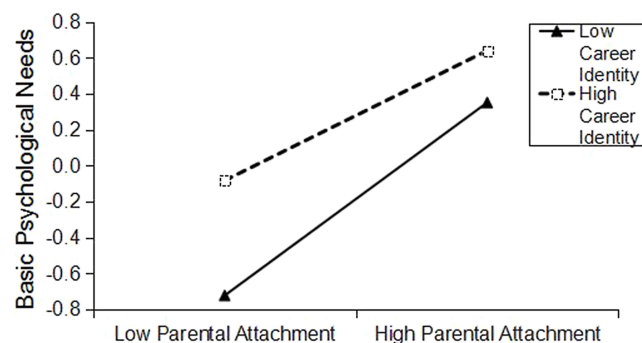


Figure 2 Simple slope chart of the moderating effect of career identity in the relationship between parental attachment and basic psychological needs.

attachment to the parents makes it easier to satisfy one's basic psychological needs.³⁴ As a universal feature of human beings, basic psychological needs are natural and necessary conditions.¹⁴ The affirmation and support of others are found to play a decisive factor in the satisfaction of such needs, and as parents play key roles in children's social relationships, adolescents with stable parental attachment are more likely to have their basic psychological needs satisfied. Therefore, when the basic psychological needs are met in life, such experience will affect the overall degree of satisfaction with life, thus making the degree of depression lower.³⁵

Third, career identity moderated the mediating effect of basic psychological needs in the relationship between parental attachment and depression. Even with unstable parental attachment, Chinese overseas students can have their basic psychological needs met when their career identity stays high, which means that career identity can buffer the effect of unstable parental attachment on basic psychological needs. Higher level of career identity is supposed to help individuals adapt to their school life, interact positively with others, and feel safe in both body and mind, and it helps students to make plans about their career in an active way.¹² This makes it easier to satisfy basic psychological needs by forming stable parental attachment with enhanced self-determination and internal motivation.¹⁷

Implications for Research

Through this study, we can provide a reference for the prevention and intervention programs to avoid depression and suicide experienced by Chinese overseas students who have not formed a stable attachment relationship with their parents. In order to reduce the depression of these students, we can explore their attachment relationship with their parents before studying abroad, and on the other hand, we can help them better adapt to their life in Korea by meeting their basic psychological needs. The study confirms that basic psychological needs play a mediating role between parental attachment and depression. Therefore, counselors should try their best to meet the basic psychological needs of Chinese overseas students with unstable parental attachment. For example, in the early stage of consultation, counselors can discuss or choose the goal of consultation together with such students to give them more autonomy, increase their competence by constant and positive affirmation in the consulting process, and satisfy their relatedness by showing support and compassion to them.

Being far away from their parents for the first time, Chinese overseas students have to live independently after leaving their home to South Korea. In such a new environment, the attachment pattern formed between them and their parents will be revealed and produce a great impact on their life of studying abroad.³⁶ In case of having unstable attachment to their parents, they can easily feel negative emotions such as depression when adapting to a life abroad.¹¹ On the other hand, their parents can be re-educated to make the unstable attachment more stable. However, it is difficult for their parents to join such education in China far away, and it is not easy to change the attachment relationship that has already existed. Considering these practical difficulties, it is a better way to make a direct intervention to Chinese overseas students in South Korea. The study shows that career identity plays a moderating role between parental attachment and basic psychological needs. Accordingly, it is suggested to cultivate the career identity of Chinese overseas students by helping them explore the value of life and motivation for learning. In this way, they can better understand themselves, and better know their needs and career interests. The school is also supposed to provide them with career planning programs and allow students to choose their major after a better self-understanding. Through this process, students can satisfy their basic psychological needs when seeing the meaning and values during their study, thus reducing the incidence of depression.

In addition, from the perspective of schools in South Korea, they should not only consider how many international students to recruit annually, but also be responsible for these recruited students. While paying attention to their academic achievements, these schools should carry out preventive education for Chinese overseas students at the early stage of studying abroad, and confirm the level of their basic psychological needs and career identity, so as to implement corresponding promotion activities to help these students better adapt to a new environment. Besides the efforts of the Korean government and schools, the Chinese counterparts also need to develop programs for adapting overseas study in an early phase. This is a preventive action for students who are going to study abroad, and it allows them an early adaptation to the country they are going to study before they leave their own country, thereby reducing some of the discomfort they may experience upon arrival in a foreign country.

Strengths and Limitations

Up to now, previous studies can only explain the relationship between parental attachment and depression, but not other variables in this relationship and the intervening mechanism of these variables. Therefore, this study contains new results that have not been identified by previous studies. It can deepen our understanding in this regard by clarifying the variables that have an impact on the relationship between parental attachment and depression.

However, the study was not without limitations. Firstly, since this study was measured by self-report questionnaires, there may be a deviation in the reliability of the collected answer sheets. In other words, the participants tend to give answers as expected by others, so they may be subject to limitations when analyzing such self-reported data. Therefore, in order to make up for these limitations, we can further conduct qualitative research through interviews and case study in future research. In this way, we can gain a deeper understanding of the difficulties experienced by Chinese overseas students and help them adapt to their college life. Secondly, this study analyzed the overall effect of parental attachment on Chinese overseas students, without comparing the paternal attachment and maternal attachment separately. In this consideration, future studies could dig deeper into the different traits of these two kinds of attachment, to make a more comprehensive exploration on their different effects on Chinese overseas students.

Conclusion

The study aims to analyze the structural relationship among parental attachment, basic psychological needs, career identity and depression of Chinese college students in Korea. The existed attachment between Chinese overseas students and their parents cannot only affect their depression, but also promote the satisfaction of basic psychological needs and the development of career identity, thus reducing their depression. Finally, it is expected that the preliminary findings of this study will encourage more research on the psychological mechanisms of Chinese overseas students, which can lead to a clear and comprehensive understanding of the interaction between parental attachment and depression of overseas students in different countries under different backgrounds.

Ethics Statement and Informed Consent

This study has obtained approval from the Ethical Committee of Sangmyung University and complied with the Declaration of Helsinki. All participants in this study were voluntarily recruited on a compensatory basis with their information kept confidential. The informed consent including the objectives, benefits and risks of participation had been read by participants before the study began, and the data collected would be exclusively used for academic research.

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Disclosure

The authors report no conflicts of interest in this work.

References

1. Hwang MH. A study on the social integration policy by comparing the identity of married immigrant women and foreign workers. *J Region Cult.* 2017;4(1):91–112.
2. Statistical monthly report [homepage on the Internet]. Seoul: Immigration/Foreign Policy Department; 2022. Available from: <http://www.index.go.kr>. Accessed March 15, 2022.
3. Lee HK. *An experimental study on the school life of university students in North Korea* [dissertation]. Seoul: Ewha Womans University; 2003.
4. Kaplan A, Maehr ML. Achievement goals and student well-being. *Contemp Educ Psychol.* 2009;24(4):330–358. doi:10.1006/ceps.1999.0993
5. Siah PC, Tee XY, Tan JTA, et al. Cybervictimization and depression among adolescents: coping strategies as mediators. *Int J Environ Res Public Health.* 2022;19(7):3903. doi:10.3390/ijerph19073903
6. Kim YJ. Verification of mediator effect of adult attachment from the aspect of relation among mentalization and dysfunctional anger expression attitude and depression. *Korean J Youth Stud.* 2017;24(10):223–251. doi:10.21509/KJYS.2017.10.24.10.223
7. Ha JH, Qualitative A. Study on Chinese students' adaptation to Korean college life. *Korean J Counsel Psychotherapy.* 2009;20(2):473–496.
8. Kim SC. *The effects of Chinese students' perceptual desire and self-respect on the adaptation of university life and psychological well-being in Korea* [dissertation]. Seoul: Sungkyunkwan University; 2010.

9. Valikhani A, Abbasi Z, Radman E, Goodarzi MA, Moustafa AA. Insecure attachment and subclinical depression, anxiety, and stress: a three-dimensional model of personality self-regulation as a mediator. *J. Psychol.* 2018;152(8):548–572. doi:10.1080/00223980.2018.1468727
10. Colin VL. *Human Attachment*. New York: McGraw-Hill; 1996.
11. Sharaf YA, Thompson EA, Walsh E. Protective effects of self-esteem and family support on suicide risk behaviors among at-risk adolescents. *J Child Adolesc Psychiatr Nurs.* 2009;22(3):160–168. doi:10.1111/j.1744-6171.2009.00194.x
12. Yoon MS, Lee JK. Effects of acculturative and life stress, parental and peer attachment on the life satisfaction among Chinese university students in Korea. *Korean J Youth Stud.* 2013;20(8):21–47.
13. Armsden GC, Greenberg MT. The inventory of parent and peer attachment: individual differences and their relationship to psychological well-being in adolescence. *J Youth Adolesc.* 1987;16(5):427–454. doi:10.1007/BF02202939
14. Deci EL, Ryan RM. The “What” and “Why” of goal pursuits: human needs and the self-determination of behavior. *Psychol Inq.* 2000;11(4):227–268. doi:10.1207/S15327965PLI1104_01
15. Ryan RM, Deci EL. *Handbook of Self-Determination Research*. Rochester: The University of Rochester Press; 2002.
16. Smojver AS, Dorčić TM, Živčić BI. Attachment to parents and depressive symptoms in college students: the mediating role of initial emotional adjustment and psychological needs. *Psihol Teme.* 2015;24(1):135–153.
17. Wei M, Shaffer PA, Young SK, Zakalik RA. Adult attachment, shame, depression, and loneliness: the mediation role of basic psychological needs satisfaction. *J Couns Psychol.* 2005;52:591–601. doi:10.1037/0022-0167.52.4.591
18. Chen B, Vansteenkiste M, Beyers W, et al. Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motiv Emot.* 2015;39(2):216–236. doi:10.1007/s11031-014-9450-1
19. La Guardia JG, Tyan RM, Couchman CE, Deci EL. Within-person variation in security of attachment: a self-determination theory perspective on attachment, need fulfillment, and well-being. *J Pers Soc Psychol.* 2000;79(3):367–384. doi:10.1037/0022-3514.79.3.367
20. Berrios-Allison AC. Family influences on college students’ occupational identity. *J Career Assess.* 2009;13(2):233–247. doi:10.1177/1069072704270320
21. Holland JL. *Making Vocational Choice: A Theory of Vocational Personalities and Work Environments*. Englewood Cliffs: Prentice-Hall; 1985.
22. Hwang MY, Park HY. Career development and school adjustment of college students. *J Vocat Educ Train.* 2005;2(12):157–176.
23. Woo BY. The difference in career attitude maturity, self-esteem, depression and college adjustment between vocational identity status. *J Career Educ Res.* 2013;26(1):47–67.
24. Lee JH. The relationship of career identity and career preparation behavior of university students: the mediating effects of self-determination and career maturity. *JLCCI.* 2013;13(3):133–154.
25. Super DE. *Career Development: Self-Concept Theory*. New York: College Entrance Examination Board; 1963.
26. Yoon CH. The mediating effect of basic psychological needs on the relation of perceived social support and high school students’ career identity. *Asian J Educ.* 2015;16(4):129–154. doi:10.15753/aje.2015.12.16.4.129
27. Erikson EH. *Identity: Youth and Crisis*. New York: Norton; 1968.
28. Holland JL, Daiger DC, Power PG. My vocational situation. *Couns Psychol.* 1980;24:404–464. doi:10.1037/0022-0167.24.5.404
29. Beck AT. *Depression: Clinical, Experimental and Theoretical Aspects*. New York: Harper and Row; 1967.
30. Jennifer L, Murdock MM, Strear MA, Jenkins G, Angela CH. Collegiate athletes and career identity. *Sport Educ Soc.* 2016;21(3):396–410. doi:10.1080/13573322.2014.924920
31. Curran PJ, West SG, Finch JF. The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychol Methods.* 1996;1(1):16–29. doi:10.1037/1082-989X.1.1.16
32. Hu LT, Bentler PM. *Structural Equation Modeling: Concepts, Issues, and Applications*. Thousand Oaks: Sage Publications; 1995.
33. Wen Z, Ye B. Different methods for testing moderated mediation models: competitors or backups In Chinese. *Acta Psychol Sin.* 2014;46(5):714–726. doi:10.3724/SP.J.1041.2014.00714
34. Cankaya ZC, Denizli S. An explanation of happiness with secure attachment, basic psychological needs and hope: the case of Turkish university students. *Eur J Educ Res.* 2020;9(1):433–444. doi:10.12973/eu-jer.9.1.433
35. Kormas C, Karamali G, Anagnostopoulos F. Attachment anxiety, basic psychological needs satisfaction and depressive symptoms in university students: a mediation analysis approach. *Int J Psychol Stud.* 2014;6(2):1–10. doi:10.5539/ijps.v6n2p1
36. Zhang CX. *A comparative study on the attachment and adjustment to college life of Korean and Chinese university students* [dissertation]. Seoul: Korea University; 2014.

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