Influence of Family Environment on Life Satisfaction among Primary School Students in the Middle and Upper Grades

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Abstract

Objective To explore the current status of family environment and life satisfaction, and analyze the impact of family environment on life satisfaction among primary school students in the middle and upper grades. Method: Five hundred and six primary school students in the middle and upper grades were selected randomly from Guangdong Province, China. They were surveyed with Family Environment Scale-Chinese Version (FES-CV) and Life Satisfaction Scale for Adolescent (LSSA). Results: First, The total score of LSSA in this group was (184.71±29.98). Second, the result of multiple linear stepwise regression analysis showed that the scores of organization (ORN) and control (COL) positively predicted the total score of LSSA (β=0.168, 0.159, both P<0.01), and conflict (CON) negatively predicted the total score of LSSA (β=- 0.130, P<0.05). Conclusion: The life satisfaction of primary school students in the middle and upper grades is at a moderate level, and there is still a lot of room for improvement. Family environment may be one of the main influencing factors of life satisfaction among primary school students in the middle and upper grades.

Keywords: *Primary school students in the middle and upper grades, Life satisfaction, Family environment, Influencing factor*

1. Introduction

Life satisfaction is an overall evaluation of individuals' living conditions for a certain period or most of their time [1], based on recognized standards. It is an important parameter for measuring quality of life [2] and subjective well-being [3]. Life satisfaction is divided into domain life satisfaction and overall life satisfaction. Domain life satisfaction is a specific evaluation of life domains that have a significant impact on individuals, such as friendship, school, and family. Overall life satisfaction refers to the general evaluation of individuals' quality of life based on their domain life satisfaction. This subjective evaluation can affect individuals'

emotional experience, which in turn affects their positioning of life goals [4] and behavioral pursuits [4]. It positively predicts an individuals' academic performance [5], school life motivation [6], and peer relationship quality [6], while negatively predicts unexpected injuries [7] and mental health issues [4, 8].

The life satisfaction of primary school students in China is mostly at a moderate level [5, 9], with a few areas at a relatively high level [8]. Friendship satisfaction, family satisfaction, and school

satisfaction are moderate, while academic satisfaction, freedom satisfaction, and environmental satisfaction are relatively low [8].

The family is an important living environment and main activity place for individuals, which has a profound impact on their growth. The family environment is a composite of the soft and hard environments of the family, which is a multidimensional system composed of five aspects: family member relationships, family structure, family roles, family functions, and internal organization of the family. The family environment is a special atmosphere that envelops a specific family, which appeals to people's inner emotions and feelings, and plays a subtle role in influencing family members [10]. It has an important impact on the occurrence, development, and outcome of various behavioral problems in children and adolescents [11-12], as well as mental illnesses [13-15].

A study [16] suggests that life satisfaction among middle school students is closely related to their family environment. This viewpoint provides a new perspective for the study of the relationship between life satisfaction and family environment. It is necessary to expand the scope of this study to other school-age groups in order to systematically understand the development process of life satisfaction among children and adolescents.

2. Objects and Methods

1.1. Objects

A total of 612 primary school students in grades 3-6 were selected randomly from Guangdong Province. Five hundred and six valid questionnaires were collected, with an effective rate of 82.68%. Among them, there are 284 boys and 222 girls; 125 in third grade, 128 in fourth grade, 125 in fifth grade, and 128 in sixth grade.

2.2. Tools

2.2.1. Life Satisfaction Scale for Adolescent, LSSA

Compiled by Zhang Xinggui et al. (2003) [17], with 36 questions, LSSA is divided into 6 dimensions: Friendship Satisfaction (FRS), Family Satisfaction (FAS), School Satisfaction (SCS), Academic Satisfaction (ACS), Freedom Satisfaction (FMS), and Environment Satisfaction (ENS). The total score of LSSA (TLSSA) is the sum of six dimensions. The Likert 7-point scoring method is used to score from 1 to 7 points corresponding to "completely disagree" to "completely agree", the higher the score, the higher the life satisfaction. In this study, the Cronbach's α coefficient of total scale is 0.922, and Cronbach's α coefficient of each dimension ranges from 0.664 to 0.838.

2.2.2. Family Environment Scale-Chinese Version, FES-CV

Compiled by American psychologist MossR H, and revised by Fei Lipeng et al. (1991) [18], FES- CV is used to describe the characteristics of various types of normal families and families in crisis situations. It consists of 90 right and wrong questions, divided into 10 subscales including Intimacy (INT), Emotional Expression (EEX), Contradiction (CON), Independence (IND), Success (SUC), Culture (CUL), Entertainment (ENT), Moral and Religious Views (MRV), Organization (ORN), and Controllability (COL). In this study, the Cronbach's αcoefficient of total scale is 0.885, and Cronbach's αcoefficient of each dimension ranges from 0.727 to 0.819.

2.3. Data Manipulation

SPSS20.0 is used for statistical analysis. Descriptive statistics are used to calculate the average score and standard deviation of each scale; Pearson product correlation is used to explore the correlation between variables; Multiple stepwise linear regression is used to analyze the impact of scores of FES-CV on LSSA total score.

3. Results

3.1. The overall situation of life satisfaction and family environment among primary school students in middle and upper grades

It can be seen from Table 1 that TLSSA, friendship satisfaction, family satisfaction, and freedom satisfaction are at a high level, while school satisfaction, academic satisfaction, and environmental satisfaction are at a moderate level [17]; independence and cultural are significantly lower than the Chinese and American norms; success and moral and religious views, and organization are significantly higher than the Chinese and American norms [18]; entertainment and controllability are significantly higher than the Chinese norm and consistent with the American norm [18].

Table 1. Descriptive statistics of LSSA and FES-CV (n=506)

Dimension	Min	Max	x± s	Item number	x± s of item
TLSSA	80	252.0	184.71±29.98	36	5.13±0.83
FRS	7.0	49.0	37.36±7.86	7	5.34±1.12
FAS	12.0	49.0	40.98±8.05	7	5.85±1.15
SCS	6.0	42.0	28.59±5.73	6	4.77±0.96
ACS	6.0	42.0	28.67±8.06	6	4.78±1.34
FMS	5.0	34.0	26.03±7.72	5	5.21±1.54
ENS	5.0	35.0	22.44±4.68	5	4.49±0.94
INT	-19.0	9.0	7.30±2.16	9	0.81±0.24
EEX	1.0	9.0	4.89±1.60	9	0.54±0.17
CON	0	25.0	2.22±2.16	9	0.25±0.24
IND	1.0	8.0	4.63±1.51	9	0.51±0.17
SUC	-14.0	9.0	8.28±1.79	9	0.92±0.20
CUL	-5.0	11.0	4.27±1.77	9	0.47±0.20
ENT	-4.0	9.0	5.41±2.06	9	0.60±0.23
MRV	1.0	10.0	6.07±1.43	9	0.67±0.16
ORN	-16.0	9.0	6.79±1.96	9	0.75±0.22
COL	-18.0	9.0	4.28±2.42	9	0.48±0.27

3.2. Relationship between life satisfaction and family environment among primary school students in middle and upper grades

3.2.1. Correlation analysis between life satisfaction and family environment among primary school students in middle and upper grades

According to Table 2, TLSSA is significantly correlated with the scores of INT, EEX, CON, IND, CUL, ENT, MRV, ORN, and COL (|r|=0.080~0.214, all *P*<0.05); The score of FRS is significantly correlated with INT, EEX, IND, CUL, ENT, ORN, and COL (|r|=0.088~0.172, all *P*<0.05); FAS is significantly correlated with scores in eight dimensions like INT, EEX, CON, CUL, ENT, MRV, ORN, and COL (|r|=0.080~0.242, all *P*<0.05); The score of SCS is significantly correlated with CON, ORN, and

COL dimensions (|r|=0.121~0.173, all *P*<0.01); ACS is significantly correlated with scores in five dimensions such as EEX, CON, CUL, ENT, and ORN (|r|=0.086~0.171, all *P*<0.05); FMS is significantly correlated with scores in seven dimensions:

INT, EEX, CON, ENT, MRV, ORN, and COL (|r|=0.087~0.133, all *P*<0.05); ENS is significantly correlated with scores in five dimensions: EEX, CON, CUL, MRV, and ORN (|r|=0.080~0.129, all *P*<0.05).

Table 2. Correlation between FES-CV and LSSA scores (r)

Dimension	TLSSA	FRS	FAS	SCS	ACS	FMS	ENS
INT	0.122**	0.096*	0.195**	0.070	0.058	0.087*	0.062
EEX	0.150**	0.094*	0.094*	0.052	0.113*	0.133**	0.099*
CON	-0.201**	-0.056	-0.208**	-0.121**	-0.141**	-0.112*	-0.129**
IND	0.080*	0.097*	-0.016	0.067	0.068	0.005	0.007
SUC	0.043	0.058	0.030	0.048	0.022	0.048	-0.032
CUL	0.115*	0.088*	0.089*	.070	0.086*	0.067	0.103*
ENT	0.131**	0.127**	0.107	0.030	0.143**	0.130**	0.074
MRV	0.091*	0.014	0.084*	0.067	0.040	0.100*	0.080*
ORN	0.214**	0.172**	0.242**	0.128**	0.171**	0.108*	0.089*
COL	0.151**	0.164**	0.094*	0.173**	0.030	0.115	0.044

Notes: *P<0.05, **P<0.01

3.2.2. Multiple stepwise linear regression analysis of the impact of family environment on life satisfaction among primary school students in middle and upper grades

Taking the score of TLSSA as the dependent variable and the scores of 10 subscales of FES-CV as the independent variables, a multiple stepwise linear regression analysis is carried out within the 95% confidence interval, the results are shown in Table 3.

According to Table 3, ORN and COL positively predict TLSSA (*β*=0.168, 0.159, both *P*<0.01); and CON negative predicts TLSSA (*β*=- 0.130, *P*<0.05).

Table 3. Multiple stepwise linear regression analysis of subscale scores of FES-CV to TLSSA

Dependent Variable	Independent Variable	B	SE	*β*	*t value*	*P value*	R^2	R_{adj}^2
TLSSA	ORN	2.488	0.848	0.168	2.934	0.004	0.186	0.170
	COL	1.857	0.638	0.159	2.909	0.004		
	CON	-2.342	1.008	-0.130	-2.325	0.021		

4. Discussion

The TLSSA, friendship satisfaction, family satisfaction, and freedom satisfaction of this group are at a high level, while school satisfaction, academic satisfaction, and environmental satisfaction are at a moderate level [17]; The scores of six dimensions of LSSA from high to low are family satisfaction, friendship satisfaction, freedom satisfaction, academic satisfaction, school satisfaction, and environmental satisfaction. The results of this study are consistent with previous studies [5, 8, 9], indicating that elementary school students in middle and upper grades generally feel basic satisfaction with life, while the two dimensions related to learning like academic satisfaction and school satisfaction are relatively low.

The independence and cultural significance of FES-CV in this group are significantly lower than the Chinese and American norms; Success, moral and religious views, and organization are significantly higher than the Chinese and American norms [18], while the scores of the other five dimensions are not significantly different from the Chinese and American norms; Entertainment and controllability are significantly higher than the Chinese norm and consistent with the American norm [18]. On the other hand,

the intimacy, emotional expression, success, entertainment, morality and religion, organization, and controllability of this group are significantly higher than the research results of Zhu Haixue [19], while the contradiction, independence, culture, and controllability are significantly lower than the research results of Zhu Haixue [19]; The intimacy, emotional expression, independence, success, cultural, entertainment, moral and religious views, and organization of this group are significantly higher than the research results of Liu Xiaoling [20]; The contradiction and controllability are significantly lower than the research results of Liu Xiaoling [20]. The comparison of the above research results suggests that the family environment has a strong cultural dependence. With the passage of time and changes in regional economic and cultural conditions, various characteristics of the family environment are constantly developing.

This study finds that the ORN and COL positively predict TLSSA, while CON negatively predicts TLSSA, suggesting that family environmental characteristics have a significant predictive effect on the life satisfaction of children. Generally speaking, if a family has a clear organization and structure in arranging daily activities and

assigning member responsibilities, and carries out family life according to fixed family rules and procedures, then children have a higher level of life satisfaction; If family members often openly express anger, aggression, and conflicts, children have lower life satisfaction.

However, the predictive power of the three influencing factors found in this study on the life satisfaction of primary school students in middle and upper grades is not very strong, with a total variance of only 17.0%. That is to say, 83% of the variation in life satisfaction among elementary school students in middle and upper grades is determined by factors outside of their family environment. The reason is due to the limited proportion of family life in the lives of elementary school students. For primary and secondary school students, schools are their primary activity venues, and the influence far exceeds that of their families. Therefore, the perception and evaluation of school life constitute the main subjective experience of primary and secondary school students, which in turn affects their living conditions and emotional performance in other places and times. Students should feel that they are personally participating in school education and experiencing joy from it, in order to achieve good development. This subjective perception and evaluation is an individual's satisfaction with school life, which is closely related to their personality, social development, and mental health [21]. That is to say, school life satisfaction plays a dominant role in the overall life satisfaction of primary and secondary school students, and its proportion should be the largest. All aspects of the school, such as teacher-student relationships, emotional and learning support from teachers, adaptive learning behaviors, the school's basic environment, learning atmosphere, the richness of school activities, student support and peer attachment, determine students' positive or negative attitudes towards school life. In the life satisfaction involved in this study, there are three dimensions related to school life: friendship satisfaction, school satisfaction, and academic satisfaction. The correlation between these three dimensions and FES-CV scores is not high, resulting in a significant but not strong predictive power of family environment on overall life satisfaction.

5. Conclusion

This study preliminarily demonstrates the significant predictive effect of three characteristics of family environment (organization, controllability, and contradiction) on the life satisfaction of primary school students in middle and upper grades, providing ideas and materials for a systematic understanding of the development process of life satisfaction among children and adolescents. The conclusion of this study is helpful for families to improve their own development, collaborate with schools and society to create a good living environment, and promote the physical and mental health development of children and adolescents.

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