

Relation Between Family Environment, Life Satisfaction, Depression and Anxiety

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Abstract: The background of this study is that as the standard of living and stress increases, most people begin to be dissatisfied with their current lives. And there is a gradual increase in the occurrence of mental health problems in people, especially depression and generalised anxiety disorder (GAD). Thus, this study intends to investigate the effect of the interaction of life satisfaction and family environment on individual depression and anxiety. A cross-sectional survey method was used to administer the questionnaire to 121 respondents. The Index of Life Satisfaction Scale(LSIA), Depression Scale(PHQ-9), 7-Item Generalized Anxiety Disorder Scale(GAD-7), and Family Environment Scale(FES) were used to investigate the relationship between current life satisfaction, family environment, and individual depression and anxiety. The results shows that life satisfaction index was significantly associated with depression and anxiety ($p<0.05$). In addition, anxiety was significantly associated with family members are always give each other the greatest help and support ($p=0.008$), family members always openly expressing their feelings for each other ($p=0.030$); depression was significantly associated with family members are always give each other the greatest help and support ($p=0.025$), members often quarrel at home ($p=0.002$), there is a kind of harmony and consistency in family ($p=0.015$), and family members are all heartily supportive of each other($p=0.032$). Thus, life satisfaction index affects anxiety and depression, and some family environment situations are significantly associated with the development of anxiety and depression.

Keywords: depression, anxiety, mental health, satisfaction with life

1. Introduction

In the current era of rapid technological development, people's demand for their own quality of life has gradually increased. Life satisfaction is an individual in accordance with their own choice of criteria for their own most of the time or continued for a certain period of time the overall cognitive assessment of the living conditions, which is an important parameter to measure the quality of life of people in a particular society. Pressure from various aspects affects people's life satisfaction index, due to the high correlation between life satisfaction and emotion more likely to have problems with mental illness, with anxiety and depression more significant [1,2].

Currently, people's living environment mainly consists of the natural environment and the social level, of which the family level of the social environment has a deeper impact on the individual. Family is a structure composed of people, in which members change and shape their character and

personality all the time due to their interaction and communication with each other [3]. The family environment is not only a family with parents before adulthood, but also a new family with others after entering the society. Thus, the shaping and influencing of the individual's conception and personality may be earlier and longer than that of the other environment factors, and The interaction between life satisfaction also has a more profound effect on individuals. Previous studies have shown that in the family environment, parental psychopathology is the most important predictor of symptoms of mental illness or even psychotic symptoms in offspring, in addition, other features of the family environment, such as lack of family closeness and hostile family relationships, will likely be important predictors of anxiety and depression [3,4]. Risky family environments and individuals with self-reported low life satisfaction, such as hostile family relationships or unfavourable psycho-social environments, are associated with a high risk of mental illness symptoms [1,5,6]. Components of negative family environments play a mediating role in people's depression [7]. Effective emotion regulation techniques can reduce unhealthy behaviours, and enhance protective factors, thereby promoting physical and mental health [3].

However, little research has been conducted on the interaction of family environment on life satisfaction, depression, and anxiety. Most studies regard those factors as a separate influencing factors to explore their impact and relationship on mental illness aspects. Therefore, this paper intends to explore the relationship between life satisfaction, family environment interactions, individual depression and anxiety through the subjective and conscious completion of questionnaires by respondents, random sampling in mainland China, and cross-sectional studies.

2. Methods and Data Analysis

2.1. Participants

This research was totally based on questionnaires from previous studies. The study was conducted with residents from randomly different areas of mainland China, and data were collected after the questionnaires were distributed to participants for completion and selection. A total of 121 valid questionnaires were screened and selected, and due to the age-restrictive nature of the reference questionnaire, residents over 11 years of age were approached to fill out the questionnaire, of which male 48 cases (39.64%) and female 73 cases (60.36%) without any compensation. The majority of the sample was between 18 - 24 years of age and a breakdown of the detailed demographic characteristics is shown in Table 1.

Table 1: Demographic characteristics.

	12-18	18-24	24-30	30-36	>36	Total
Male	3	32	11	1	1	48
Female	6	54	10	0	3	73
Total	9	86	21	1	4	121

2.2. Data Analysis and Statistical Methods

All statistical analyses were performed using IBM SPSS Statistics for Windows version 27.0 to test the hypotheses formulated in this study, and measurements were tested for normality and expressed as ($\bar{x} \pm s$). After the t-test, $P < 0.05$ for “ Life satisfaction and family environment in relation to generalised anxiety disorder” and “ Life satisfaction and family environment in relation to

depression “ were considered statistically significant. $P < 0.05$ was considered statistically significant. Pearson’s correlation was used to analyse the “correlation between LSI and family environment”.

2.3. Scales

The Life Satisfaction Index Scale, the Depression Scale, the 7-Item Generalized Anxiety Disorder Scale, and the Family Environment Scale were used to investigate the relationship between current life satisfaction, the family environment in which one grows up, and individual depression and anxiety.

2.3.1. Life Satisfaction Index Scale(LSIA)

The Life Satisfaction Index Scale (LSIS) A is a self-report scale developed by Neugarten, Havighurst, and Tobin Zai in 1981, which measures an individual’s satisfaction with life in terms of cognitive and emotional feelings LSIS consists of a total of 20 items, each of which is scored on a scale ranging from 0 (least satisfied) to 20 (most satisfied) for either “Agree”, “Unsure”, or “Disagree”, “Not sure” or “Disagree” for each item, with scores ranging from 0 (lowest satisfaction) to 20 (highest satisfaction) [8].

2.3.2. Depression Scales(PHQ-9)

The PHQ-9 is a 9-item self-assessment instrument based on the Diagnostic and Statistical Manual of Mental Disorders Fourth edition, DSM-IV, Major depressive disorder (MDD), and is only as long as other depression screening instruments. Generalized Depression Screening Scale tool, which has become one of the preferred tools for screening for depression in primary health centres, assesses how the respondent has felt in the past two weeks [9].

2.3.3. 7-Item Generalized Anxiety Disorder Scale(GAD-7)

It is a self-assessment scale developed by Spitzer et al. at the New York Psychiatric Institute in 2006, which is used to test the degree of generalised anxiety disorder in an individual, and can also be used to screen for or assist in the diagnosis of anxiety, the scale consists of 7 entries, with a total score of 21 points, and the higher the score, the more severe the level of anxiety [10].

2.3.4. Family Environment Scale (FES)

The Family Environment Scale (FES-CV) was compiled by American psychologists R. Moss and B. Moss in 1981, and the Chinese version of the questionnaire (EFS-CV) was revised by Michael Phillips in 1991 according to the qualities of Chinese families [11]. For the EFS scale, with higher reliability in 4 sub-scales of intimacy, ambivalence, knowledge and organisation, slightly poorer consistency in 3 sharing scales of success, recreation and control, and poor reliability in 3 sub-scales of independence, moral-religious outlook, and expressiveness, one should be cautious when using scale groups for interpretation. Therefore, in this study, the eight questionnaire selections about family environment with higher reliability were chosen based on the reliabilities.

3. Result

121 questionnaires were distributed and returned through online questionnaire distribution. There were 48 (39.64%) male and 73 (60.36%) female cases. There were slightly more females than males.

3.1. Life Satisfaction and Family Environment in Relation to Generalised Anxiety Disorder

Table 2: Anxiety : life satisfaction index(LSI) and family environment.

	Anxious or not (mean \pm standard deviation)		<i>t</i>	<i>p</i>
	No(<i>n</i> =85)	Yes(<i>n</i> =36)		
LSI	2.12 \pm 0.32	1.97 \pm 0.24	2.393	0.019*
Family members are always give each other the greatest help and support	1.75 \pm 0.44	1.45 \pm 0.51	2.776	0.008**
Members often quarrel at home	1.31 \pm 0.47	1.41 \pm 0.50	-0.990	0.324
There is a kind of harmony and consistency in family	1.73 \pm 0.45	1.52 \pm 0.51	1.988	0.053
Family members rarely lose their temper with each other	1.48 \pm 0.50	1.31 \pm 0.47	1.592	0.117
Few family members volunteer to do it when there's something going on	1.21 \pm 0.41	1.21 \pm 0.41	0.048	0.962
family members are often openly express their feelings for each other	1.46 \pm 0.50	1.24 \pm 0.44	2.224	0.030*
Family members are all heartily supportive of each other	1.79 \pm 0.41	1.62 \pm 0.49	1.618	0.113
Family members are careful not to hurt each other's feelings when they speak to each other	1.58 \pm 0.50	1.48 \pm 0.51	0.858	0.393
* $p < 0.05$ ** $p < 0.01$				

According to the table 2, the use of t-test (all known as independent samples t-test) to study the difference between whether or not anxiety on the LSI. Family environment scales contain a total of 9 items, as can be seen from the table2: whether or not anxiety samples on the LSI($p=0.019$), “family members are always give each other the greatest help and support”(p=0.008), “family members are often openly express their feelings for each other” (p=0.030) a total of 3 items showed significance ($p < 0.05$). The results indicate that the anxiety samples have a statistically significant effect on these items.

3.2. Life Satisfaction and Family Environment in Relation to Depression

Table 3: Depression : life satisfaction index and family environment.

	Depression or not (mean \pm standard deviation)		<i>t</i>	<i>p</i>
	No (<i>n</i> =73)	Yes (<i>n</i> =48)		
LSI	2.14 \pm 0.23	2.00 \pm 0.37	2.261	0.027*
Family members are always give each other the greatest help and support	1.75 \pm 0.43	1.53 \pm 0.50	2.284	0.025*
Members often quarrel at home	1.21 \pm 0.41	1.51 \pm 0.51	-3.189	0.002**
There is a kind of harmony and consistency in family	1.77 \pm 0.42	1.53 \pm 0.50	2.489	0.015*

Table 3: (continued).

Family members rarely lose their temper with each other	1.49±0.50	1.35±0.48	1.433	0.155
Few family members volunteer to do it when there's something going on	1.16±0.37	1.28±0.45	-1.432	0.156
Family members are often openly express their feelings for each other	1.46±0.50	1.33±0.47	1.329	0.187
Family members are all heartily supportive of each other	1.82±0.38	1.63±0.49	2.179	0.032*
Family members are careful not to hurt each other's feelings when they speak to each other	1.58±0.50	1.51±0.51	0.665	0.508
* $p<0.05$ ** $p<0.01$				

From the table 3, it can be seen that the study of whether or not depression on LSI, family environment total 9 items of difference: depression samples for life satisfaction index ($p=0.027$), "Family members are always give each other the greatest help and support" ($p=0.025$), "Members often quarrel at home" ($p=0.002$), "There is a kind of harmony and consistency in family" ($p=0.015$), "Family members are all heartily supportive of each other" ($p=0.032$), a total of 5 items showed $p<0.05$. Meaning the depression samples have a statistically significant effect on these 5 items.

3.3. Correlation Between LSI and Family Environment

Table 4: Pearson correlation-detailed format.

		Life Satisfaction Index
Family members are always give each other the greatest help and support	correlation coefficient	0.175
	p	0.082
Members often quarrel at home	correlation coefficient	0.004
	p	0.970
There is a kind of harmony and consistency in family	correlation coefficient	0.292**
	p	0.003
Family members rarely lose their temper with each other	correlation coefficient	0.119
	p	0.237
Few family members volunteer to do it when there's something going on	correlation coefficient	0.244*
	p	0.014
Family members are often openly express their feelings for each other	correlation coefficient	0.207*
	p	0.039
Family members are all heartily supportive of each other	correlation coefficient	0.138
	p	0.170
Family members are careful not to hurt each other's feelings when they speak to each other	correlation coefficient	0.287**
	p	0.004
* $p<0.05$ ** $p<0.01$		

From table 4, it is clear that the correlation coefficient value between life satisfaction index and “There is a kind of harmony and consistency in family” is 0.292 and shows significance at 0.01 level. The correlation coefficient value between life satisfaction index and “Family members are careful not to hurt each other’s feelings when they speak to each other” is 0.287 and shows significance at 0.01 level. The correlation coefficient value between Life Satisfaction Index and “Family members are often openly express their feelings for each other” is 0.207 and it is significant at 0.05 level. The correlation coefficient value between life satisfaction index and “Few family members volunteer to do it when there’s something going on” is 0.244 and significant at 0.05 level.

4. Discussion

4.1. Depression and Anxiety Are Discussed Separately from Life Satisfaction and Family Environment

The results of this research show that life satisfaction index is significantly related to depression and anxiety and is related to some dimensions of family environment. The results indicate that both life satisfaction and family environment of the subjects significantly affect their depression and anxiety. In Zhai H’s study, the researcher concluded that poor economic status, unemployment of parents, long time of separation from family members, and family conflicts were related to students’ depression [7]. In this experiment, it was found that whether the family is supportive (emotionally or financially), family quarrels and a good environment in the family were associated with depression in the subjects, such results are very similar to Zhai H’s study. The results clarified that most of the individuals in the population who were anxious and depressed are indeed affected by life satisfaction and family environment. But at the same time, they may be affected to different degrees because of individual differences. Therefore, only certain situations in the family environment have a greater impact on depression and anxiety.

At the same time, this experiment also has qualitative data “gender” and quantitative data “age”. After the ANOVA test, life satisfaction and family environment on depression and anxiety does not have significant gender and age differences. It showed that these two factors do not have any influence on the research content of this research. This study suggests that the reason for this situation may be due to the fact that life’s adversities are viewed and resolved differently at different ages and genders, and that there is variability in everyone’s thoughts and thinking. This is not the same as the study of Hoseini-Esfidarjani SS. Hoseini thought that anxiety, depression and age are significantly associated with life satisfaction [6]. It may be due to the fact that in the study of Hoseini-Esfidarjani SS, the sample was obtained only in the case of adolescent girls in Tehran, limiting the gender and age, or it may be due to the fact that the two countries were not the same, which resulted in different insights into the handling of emotions of the individual residents.

4.2. The Interaction Between Life Satisfaction and Family Environment on Depression and Anxiety

The Pearson correlation table for life satisfaction and family environment shows that LSI is significantly correlated with “There is a kind of harmony and consistency in family”, “avoiding hurting the other members”, “expressing emotions openly”, and “few family members volunteer to do it when there’s something going on”. Thus, it shows that there is a significant positive correlation between the subjects’ life satisfaction index and these family environment conditions, and they tend to focus on these aspects when measuring their life satisfaction. From this study, this paper conclude that there is a relationship between life satisfaction and family environment, and it is

possible to improve life satisfaction by improving the family situation, which can further improve and prevent depression and anxiety.

4.3. Suggestions and Limitation

In summary, from the conclusion of this experiment, it is obvious that life satisfaction and family environment have an impact on individual anxiety and depression, and life satisfaction and family environment are also partially significant positive correlated. At the same time, the age of the subjects in this experiment is concentrated in the 18-24 years old stage, and most of them belong to the situation of half-stepping into the society as students, with the process of “role change”, and subject to the double pressure of family and society. With the advent of the digital age, individuals are under increased pressure from different sources, which can put their life satisfaction at risk. Given the impact of life satisfaction and family environment on depression and anxiety in this study, the persistence of mental health problems has a significant impact on an individual’s life and also has a negative feedback tendency in a vicious circle. Therefore, in today’s high-development life situation, the gradual decrease in life satisfaction leads to a gradual increase in negative emotions. In the future, there is an urgent need for more research studies aimed at improving the mental health of individuals, as well as for the development of treatments for the associated psychological negativity, and for the intentional assessment of depression, anxiety, and life satisfaction in the context of positive psychology practices [12].

However, the sample size of this study is small, and the sample was only randomly selected from residents of mainland China, thus, it is not possible to generalise to a wider area and a wider range of people. This is a cross-sectional study, and the results of the questionnaire are subjective, as the choice of questions may have been influenced by the environment during the 2-week period, so the results should be considered with caution.

5. Conclusion

In conclusion, it is possible to observe in this study that the life satisfaction index is significantly associated with depression and anxiety, suggesting that low life satisfaction promotes depression and anxiety in individuals when life satisfaction is not guaranteed. In addition, anxiety and depression were also significantly associated with family environment. Anxiety disorders were particularly associated with “Family members are often openly express their feelings for each other”, which may be due to the fact that emotional communication with family members can alleviate anxiety. This is because the warmth of the family environment and the closeness of the family members have a greater impact on the development of depression. Meanwhile, the correlation between the life satisfaction and the family environment was explored. A significant positive correlation was found between the life satisfaction and “There is a kind of harmony and consistency in family”, “Family members are careful not to hurt each other’s feelings when they speak to each other”, “Family members are often openly express their feelings for each other”, and “Few family members volunteer to do it when there’s something going on”. This shows that most of the family environment conditions linked to life satisfaction are associated with depression and anxiety, so the interaction between life satisfaction and family environment has a profound effect on depression and anxiety.

Therefore, this study suggests that life satisfaction can be improved by improving the home environment condition, to avoid or reduce the emergence of depression and anxiety in individuals. Since this study was conducted with a small sample and there is a wider and more detailed selection of types for the independent variable of family environment, more relevant studies may be needed in the future to continue to further explore and model the relationship.

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