

The Study on the Relationship Among the Temperament Type, Parental Rearing Pattern, and Sense of Loneliness of College Students

DENG Xiaoyan^{[a].*}

^[a]School of mathematics and Finance, Chongqing University of Arts and Sciences, Chongqing, China

*Corresponding author.

Received 19 June 2016; accepted 10 August 2016
Published online 26 August 2016

Abstract

The study sets 557 college students in Chongqing Municipality as subjects and adopts the scaling method to study the relationship among temperament type, parental rearing pattern and sense of Loneliness: (a) The difference of examination indicates that: Female college students exhibit more loneliness in kinship and overall than male students, and are more emotionally inclined in aspect of the temperament type; the score reflecting the sociality of college students for those from urban areas is remarkably higher than the score of those from rural areas; and major difference among majors is significantly reflected in respectively students' sense of loneliness in love and their overall loneliness, that students majoring in science and engineering experience more sense of loneliness, especially that in respect of love. (b) The correlation analysis shows that: Dimensions of the sense of loneliness of college students are significantly correlated with the sociality of their temperament types and large amount of factors within the parental rearing patterns by which they are brought up. (c) The regression analysis further indicates that: maternal emotional warmth has a significant predictive effect on the overall sense of loneliness; maternal emotional warmth, together with severe paternal punishment and maternal interference and protection thereof have a significant predictive effect on factors of the sense of loneliness in kinship; sociality and severe paternal punishment have a significant predictive effect on factors of sense of loneliness in love; and maternal emotional warmth, maternal interference and protection thereto, as well as paternal interference thereto all have a significant predictive effect on factors of sense of social loneliness.

Key words: College students; Temperament type; Parental rearing pattern; Sense of loneliness

Deng, X. Y. (2016). The Study on the Relationship Among the Temperament Type, Parental Rearing Pattern, and Sense of Loneliness of College Students. *Studies in Sociology of Science*, 7(4), 66-74. Available from: URL: <http://www.cscanada.net/index.php/sss/article/view/8888> DOI: <http://dx.doi.org/10.3968/8888>

INTRODUCTION

Sense of loneliness is a subjective psychological experience caused by the difference between the longing for communication of an individual and the actual level of his or her communication, usually associated with negative emotional reactions, such as dolefulness, isolation, helplessness, and depression, and intolerable spiritual emptiness. It has been commonly suggested by many researches both from home and abroad that the sense of loneliness influences in the form of infiltrating in many respects, including the development of children and adolescents, psychological health, and individual socialization as an important aspect of the formation of people's psychological problems, meanwhile, the sense of loneliness also has an extensive connection with a number of social problems such as abuse of alcohol and drugs, assaults and violation (Peplau & Perlman, 1982; John et al., 2000; Joubert, 1987; Zhou et al., 2003). Previous studies on sense of loneliness have been largely concentrating on the study of two age groups, namely children and the aged, as well as paying relatively more attention to special groups, such as divorced families, children with difficulties in learning, and the migrating populations (Zhou et al., 2003, pp.1-18; Xin & Chi, 2003; Dykstra & de Jong, 1999; Peter, Theo, & Surmeijer, 2001). However, deep study on the sense of loneliness of college students, a group as transitional from adolescents

to adults featuring high plasticity. The college period is a critical one during which strong and comprehensive sociality and emotional demands of an individual are developed. Characteristics such as psychological locking and egoism are often observed for persons of this age group, which, together with the influence of environmental factors, such as diversified values, fierce competition, and learning stress, contribute to the situation that demands of persons of this age group are usually unsatisfied or merely satisfied to a less degree, further causing their social and emotional sense of loneliness to varying degrees. As a psychological phenomenon widely existing among college students and having far-reaching influence on individual and social development, the sense of loneliness ought to be a focus of attention. The study of the sense of loneliness of college students may not only widen the age range of the theoretical study of sense of loneliness, but also has a practical significance on the psychological health education and guidance for college students.

At present, among studies of the sense of loneliness of college students, some have discussed the differences in experiencing sense of loneliness, including those in respect of differences among genders, urban and rural areas and disciplines, but have not yet reached a final conclusion. For example, some studies show that, in respect of college students' sense of loneliness, no gender difference is observed, but there is an increasing tendency of the intensity of sense of loneliness from students of lower grades to higher grades, while the sense of loneliness of college students from rural areas is stronger than that of students from urban areas (Luo et al., 1999). There are also some studies indicating that the sense of loneliness of female students is significantly stronger than that of male students, and in this respect, the grade difference is not significantly reflected (Li, 2000). And there are also studies finding that the influences of students' territorial origins and disciplines on college students' sense of loneliness are not significantly reflected in the total points (Jiang et al., 2005). In addition, these studies have been often measuring the sense of loneliness by considering it as a one-dimensional variable, while researchers such as Weiss have been emphasizing for years that the sense of loneliness should be multidimensional, that different groups may show different characteristics on different dimensions of the sense of loneliness, and different types of sense of loneliness also have different causes (Weiss, 1973; Enrico & Barry, 1997). Since divergence on the results of studies on the differences between genders, students' territorial origins and disciplines of students' sense of loneliness still exists, and whether or not the expressions of the difference between different types of sense of loneliness appearing in different groups of college students differ still needs further verification, these questions will be further discussed in this study.

Besides, from previous studies, it can be seen that the influencing factors of the sense of loneliness can be classified into two categories, namely the internal factors of the individual and the external environments. The internal factors include personality variables, cognitive factors, and demographic variables, and the external factors include the family environment, the social support system, and social life events (Samuelsson & Andersson, 1998; Peter, Theo, & Surmeijer, 2001; Helen & Adrian, 2002). There have long been some helpful discussions done by overseas researchers. For example, researchers such as Karry have prioritized the causes of sense of loneliness as follows (Ka-on, 1998): the style of children's attaching to their parents at their early stage, personality factors, the negative individual cognition and response thereto, lack of social skills, and the neglect of sociality. At home, empirical studies on the sense of loneliness and companion of children and on family relationships have been done by researchers such as Xin (2003) and Zhou (2003). However, the objects of these studies are still children and the aged, and when it comes to the internal factors, temperament, as an important factor with relative stability, has all the time been less referred to. On the other hand, studies done by researchers such as Helen et al. (2002) in recent years show that, as a relatively stable personality trait, temperament has a predictive effect to certain degree on the level of the sense of loneliness of an individual. The susceptibility of individuals of different temperament types to the sense of loneliness as well as the countermeasure strategies adopted thereby are all relatively different. There are also some studies finding that (Karin, 2002), comparing with social relationships, the sense of loneliness of adults is more closely related to their personalities and psychological traits. These are all suggesting us that, as far as college students who are in a critical period of development in their life are regarded, it is more necessary to start with temperament to discuss its relationship with the sense of loneliness, which will have an important significance on contemporary education for personality and psychological health. On the aspect of external factors, family relationships, especially the individual's relationship with his or her parents have been well proven by previous studies as an important factor in long-term effect that has influence on the individual sense of loneliness. The studies on the relationship between family factors and the sense of loneliness in the past, on one hand, largely set children as their research objects, and on the other hand, started with family function and the style of the individual's attachment to parents (Enrico, Cyndi, & Rossb, 2003; Yu, Xin, & Luo, 2000), while relatively systematic empirical studies on the effect of rearing pattern on the sense of loneliness were insufficient. However, the rearing pattern is not only a variable that is most likely to be improved and be used in direct family intervention, but has also been proven by many studies to

be the most important factor among a number of family factors that influence the individual's social and emotional developments. For example, the studies done by Wang et al. (2004) suggest that parental rearing pattern is closely related to various emotion's developments of college students including self-esteem; and the studies done by Li et al. (2002) also have found that the parental rearing pattern has great influence on the sense of loneliness of blind children. Therefore, this study will also discuss the relationship between the rearing pattern and sense of loneliness, which is believed to be significantly valuable to the enrichment of relevant theories and the prevention and intervention of the sense of loneliness.

Throughout the studies both at home and abroad, it is not difficult to find some shortcomings existing in previous studies: (a) most of them measured the sense of loneliness by simply considering it as one-dimensional and failed to fully reveal the relationship among the elements inside the sense of loneliness; (b) divergence in the results of studies on the differences of the demographic variables of the sense of loneliness, such as genders, student's territorial origins and disciplines still exists, in pertinence to which further discussion yet needs to be conducted; and (c) on the aspect of the discussion of the influencing factors, temperament and the rearing pattern, as the two important influencing factors unnegligible, still need to be discussed and be studied deeply especially when it refers to college students. Do temperament type and parental rearing pattern have a predictive effect on the sense of loneliness of college students? How relatively important are the two factors in the sense of loneliness? All of these need further verification. Since the sense of loneliness is a complex concept both psychologically and socially related, it can be better prevented and intervened only if we can study and understand deeply its nature and relevant important influencing factors. To sum up, this study sets young college students as its objects and will discuss the following two problems: (a) the relationship among demographic variables and the dimensions of the sense of loneliness, temperament types, and parental rearing pattern of college students; and (b) the relationship between the sense of loneliness of college students and the temperament and parental rearing pattern.

1. RESEARCH METHOD

1.1 Subjects

The subjects are composed of 589 undergraduate students from three higher education institutions in Chongqing, who participate in voluntarily and anonymously. The number of valid questionnaires returned is 557 and the recovery rate is 94.56%. Among the subjects, the numbers of male and female students are respectively 298 and

259; the numbers of students majoring in liberal arts and science and engineering are respectively 246 and 311; the numbers of students whose families live in urban areas and in rural areas are respectively 388 and 169; and the numbers of freshmen, sophomores, juniors, and seniors are respectively 135, 137, 138 and 147.

1.2 Tools

1.2.1 Sense of loneliness Scale

The scale is composed of three dimensions, including the sense of loneliness in kinship, the sense of loneliness in love, and the sense of loneliness in social communication. It has 15 items and adopts the 5-grade marking system (1=Not Matching At All, 5=Highly Matching). The sense of loneliness in social communication is a lonely experience of an individual caused by lacking of successful social relations, which is to a large extent connected with the absence of the general social relations; the sense of loneliness in love is a lonely experience of an individual caused by the absence or loss of love relations; and the sense of loneliness in kinship is a lonely experience of an individual caused by the absence or loss of important kin relations. There have been studies suggesting that this scale has relatively high reliability and validity (Kenneth & Cramer, 2000; Kenneth & Cramer, 2001). In this study, the coefficients of internal consistency among the items of the three dimensions of the scale are respectively 0.83, 0.71 and 0.85, and the coefficient of overall consistency is 0.77.

1.2.2 Temperament Type Scale

The temperament type scale drawn up by Buss & Plomin and translated by Chen Huichang is hereunder adopted. It has three dimensions, namely sociality, emotionality, and activity and 66 items, and adopts the 5-grade marking system (1 = Not like Me At All, 5 = like Me Very Much). Sociality refers to one's popularity and the characteristics of his or her getting on with others. Individuals with strong sociality are likely to find playmates and are both fond of and easy to respond to others. Emotionality refers to the intensity of one's emotional response, whereof children who easily get scared and angry have high-level emotionality. Activity refers to the general level of one's releasing of his or her energy, and persons with high-level activity are fond of activity, dislike quietness, and are busy in most case. There have been studies suggesting that this scale has relatively high reliability and validity (Buss & Plomin, 1986). In this study, the consistency coefficient of the scale ranges from 0.71 to 0.85.

1.2.3 Parental Rearing Pattern Scale

"Evaluation Scale of Parental Rearing Pattern" (EMBU) (Wang et al., 1999) jointly drawn up by Perris etc. and revised by Yue Dongmei is adopted. The scale includes two subscales respectively with respect to the father and the mother. The subject answers each question respectively in terms of paternal rearing pattern and maternal rearing pattern. The scale has 66 items. The paternal subscale

consists of 6 dimensions, including emotional warmth and understanding, severe punishment, over-interference, preference to the subject, refusal and denial and over-protection; while the maternal subscale is comprised of 5 dimensions, including “emotional warmth and understanding”, “over-intervention and over-protection”, “refusal and denial”, “severe punishment”, and “preference to the subject”. There have been studies suggesting that this scale has relatively high reliability and validity. In this study, the consistency coefficient of the scale ranges from 0.68 to 0.87. And at the same time when the scale is implemented in the test, the general demographic data of the subject, such as his grade, gender, major, and urban or rural residence are obtained.

1.3 Procedure

The group test is conducted by the primary experimenter in selected higher education institutions. All the subjects are anonymous and are required to complete the test under the unified guidance there from. The data are statistically processed by SPSS17.0 Software Package.

2. DATA ANALYSIS

2.1 Gender Difference in the Sense of Loneliness, Temperament Types and Parental Rearing Patterns of College Students

The *t*-test is applied to analyze scores given by subjects of different genders for all variables and the result is shown in Table 1:

Table 1
The Analysis Result of Gender Difference in All Studied Variables

| | Male (n=298) | | Female (n=259) | | <i>t</i> |
|--------------------------------|--------------|-----------|----------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sense of loneliness in kinship | 19.21 | 3.72 | 17.57 | 3.82 | 2.832** |
| Overall sense of loneliness | 44.16 | 6.44 | 42.11 | 6.22 | 2.488* |
| Emotionality | 29.21 | 7.32 | 31.63 | 6.61 | -2.650** |
| Paternal sever punishment | 22.01 | 9.76 | 18.33 | 6.44 | 2.546* |
| Paternal preference | 10.70 | 3.37 | 11.92 | 3.57 | -2.102** |
| Paternal protection | 13.82 | 3.25 | 12.66 | 2.95 | 2.836** |
| Maternal protection | 36.77 | 6.28 | 34.94 | 6.63 | 2.134* |

Note. **P*<0.05, ***P*<0.01, ****P*<0.001, hereinafter is the same.

The statistical result indicates that, in respect of the sense of loneliness, gender difference is significantly reflected in subjects’ scores for the sense of loneliness in kinship and the overall sense of loneliness, wherein scores given by female students are lower than those by male students; in respect of temperament type, gender difference is also significantly reflected in subjects’ scores for emotionality, wherein scores given by female students are higher than those by male students; and in respect of parental rearing pattern, gender difference is significantly

reflected in scores given for paternal severe punishment, paternal protection, paternal preference, maternal intervention and protection, wherein for paternal severe punishment, paternal protection and maternal intervention and protection scores given by male students are higher than those by female students; and for paternal preference scores given by female students are higher than those by male students. This indicates that female students experience more sense of loneliness, especially the sense of loneliness in kinship, and are more emotionally inclined on the aspect of temperament type; and if the subject is a girl, the paternal rearing pattern would be more often reflected as preference thereto, while the rearing pattern to a boy is more often reflected as severe punishment and protection; and by contrast, a mother is more inclined to give her son intervention and protection.

2.2 Urban-Rural Difference in the Sense of Loneliness, Temperament Types and Parental Rearing Patterns of College Students

The *t*-test is applied to analyze scores given by subjects respectively from urban and rural areas for variables and the result is shown in Table 2:

Table 2
The Study of Urban-Rural Difference in Variables

| | Urban areas (n=388) | | Rural areas (n=169) | | <i>t</i> |
|--------------------------------------|---------------------|-----------|---------------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sociality | 13.37 | 2.73 | 12.57 | 2.63 | 2.127** |
| Paternal preference | 12.03 | 3.57 | 10.74 | 3.34 | 2.261* |
| Paternal protection | 13.52 | 3.19 | 12.32 | 2.85 | -2.843** |
| Maternal emotional warmth | 57.50 | 8.99 | 52.38 | 7.92 | 4.081* |
| Maternal intervention and protection | 36.88 | 6.71 | 33.19 | 5.47 | 4.081** |
| Maternal preference | 12.62 | 5.98 | 10.72 | 3.96 | 2.296** |

The result shown in Table 2 indicates that no urban-rural difference is significantly reflected in subjects’ sense of loneliness, which is, however, significantly reflected in subjects’ sociality, wherein scores given by students from urban areas are significantly higher than those by students from rural areas; in respect of the rearing pattern, urban-rural difference is reflected remarkably in the dimensions including paternal preference, paternal protection, maternal warmth, maternal emotional protection, and maternal preference, and the average score for parents living in urban areas is distinctly higher than that for parents living in rural areas, which means, compared with rural parents, fathers living in urban areas are more inclined to give their offspring preference and protection, while mothers are more inclined to the rearing pattern of giving warmth, emotional protection and preference.

2.3 Disciplinary Difference in College Students' Experiencing of Sense of Loneliness

The *t*-test is applied to analyze scores given by students of different majors for all kinds of sense of loneliness, and the result is shown in Table 3:

Table 3
The Analysis Result of Disciplinary Difference in Sense of Loneliness

| | Students majoring in liberal arts (<i>n</i> =246) | | Students majoring in science and engineering (<i>n</i> =311) | | <i>t</i> |
|-----------------------------|--|-----------|---|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Sense of loneliness in love | 13.25 | 4.42 | 10.28 | 4.11 | 4.624** |
| Overall sense of loneliness | 43.97 | 6.52 | 41.27 | 5.77 | 2.948* |

The statistical result indicates that disciplinary difference is significant in scores given by subjects for the sense of loneliness in love and the overall sense of loneliness, that scores given by students majoring in science and engineering are lower than those by students majoring in liberal arts, which indicates that students

majoring in science and engineering experience more sense of loneliness, especially the sense of loneliness in love.

Besides, the statistical result indicates that grade difference is not significantly reflected in variables studied.

2.4 The Correlation Analysis of Factors of Temperament Type, Parental Rearing Pattern and Sense of Loneliness

Table 4
Correlation Analysis of Sense of Loneliness, Temperament Type, and Parental Rearing Pattern

| | Sociality | Paternal warmth | Paternal punishment | Paternal intervention | Paternal preference | Paternal refusal | Paternal protection | Maternal warmth | Maternal Intervention and protection | Maternal refusal | Maternal punishment | Maternal preference |
|---|-----------|-----------------|---------------------|-----------------------|---------------------|------------------|---------------------|-----------------|--------------------------------------|------------------|---------------------|---------------------|
| Sense of loneliness in Kinship | 0.234** | 0.378** | -0.147** | 0.150 | 0.132 | -0.352** | 0.106 | 0.618** | 0.404** | -0.365** | -0.299** | 0.113 |
| Sense of loneliness in Love | 0.372** | 0.112 | 0.368** | -0.152 | 0.237** | 0.173 | 0.115 | 0.074 | 0.126 | 0.162 | 0.194* | 0.238** |
| Sense of loneliness in Social Communication | 0.265** | 0.247** | -0.218** | -0.352** | 0.107 | -0.253** | -0.143 | 0.490** | -0.393** | -0.237** | -0.295** | 0.057 |
| Overall sense of loneliness | 0.260** | 0.382** | -0.122** | -0.093 | 0.236** | -0.136 | 0.108 | 0.517** | 0.046 | -0.135 | -0.117 | 0.198* |

The result of Table 4 indicates that the sociality of the temperament type of subjects and most of the factors within the parental rearing patterns are, to varying degrees, related to dimensions of the sense of loneliness of the subjects. Among these, the positive correlation between the sense of loneliness in kinship and sociality, emotional warmth given by parents, and maternal intervention and protection reaches a level of significance, and the negative correlation between the sense of loneliness in kinship and parents' severe punishment and refusal reaches a level of significance; the positive correlation between the sense of loneliness in love and factors including sociality, parents' severe punishment and preference thereto reaches a level of significance; the positive correlation between the sense of loneliness in social communication and sociality and emotional warmth given by parents reaches a level of significance, and the negative correlation between the

sense of loneliness in social communication and parents' severe punishment, intervention and refusal reaches a level of significance; and the positive significance between the overall sense of loneliness and sociality, emotional warmth given by parents and preference thereto reaches a level of significance.

2.5 Regression Analysis of Factors of Temperament Type, Parental Rearing Pattern, and Sense of Loneliness

To further discuss the degree of the intimacy of the relation among the sense of loneliness, the temperament type and parental rearing pattern, the study conducts a regression analysis by using factors of temperament type and parental rearing pattern as independent variables and factors of the sense of loneliness as dependent variables, and the result of stepwise regression is shown in Table 5.

Table 5
The Regression Analysis of Factors of Temperament Type, Parental Rearing Pattern, and Sense of Loneliness

| | Factors selected | β | R^2 (accumulation) | F |
|---|--------------------------------------|-----------|----------------------|-----------|
| Overall sense of loneliness | Maternal emotional warmth | 0.416*** | 0.174 | 26.977*** |
| Sense of loneliness in kinship | Maternal emotional warmth | 0.512*** | 0.263 | 42.148*** |
| | Paternal severe punishment | -0.447*** | 0.367 | 34.055*** |
| | Maternal intervention and protection | 0.212* | 0.397 | 24.601* |
| Sense of loneliness in love | Sociality | 0.286*** | 0.082 | 19.511*** |
| | Paternal severe punishment | 0.243*** | 0.147 | 17.022*** |
| Sense of loneliness in social communication | Maternal emotional warmth | 0.426*** | 0.123 | 16.485*** |
| | Maternal intervention and protection | -0.267*** | 0.192 | 13.889*** |
| | Paternal intervention and protection | -0.253*** | 0.254 | 13.193*** |

The result of the regression analysis shown in Table 5 indicates that maternal emotional warmth has a significant predictive effect on the overall sense of loneliness with an interpretation ratio of 17.2%; maternal emotional warmth, paternal severe punishment, and maternal intervention and protection have a significant predictive effect on the sense of loneliness in kinship with an interpretation ratio of 26.2%-39.7%; sociality and paternal severe punishment have a significant predictive effect on the factor of the sense of loneliness in love with an interpretation ratio of 8.2%-14.7%; and maternal emotional warmth, maternal intervention and protection and paternal intervention have a significant predictive effect on the factors of the sense of loneliness in social communication with an interpretation ratio of 12.3%-25.2%.

3. DISCUSSION

3.1 Gender Difference in College Students' Sense of Loneliness, Temperament Type and the Paternal Severe Punishment

From this study, it can be seen that, among college students, female students experience more sense of loneliness both in kinship and overall than male students. This is basically in line with the results of most of the previous studies (Li, 2000; Li et al., 1998), but is nevertheless inconsistent with the results of studies done by some scholars who set children as the study objects. For example, the result of Zhou Zongkui's study on children of 3-6 grades in preliminary schools shows that "male students experience more sense of loneliness than female students" (Zhou et al., 2003), and the same result can also be found in the studies done by scholars such as SingLau (1999). It occurs to the author of this study that emergence of such gender difference is very likely to be somewhat correlated with the socialization of gender roles. Some researchers have pointed out that the difference between individual emotions and behavior is insignificant at one's early stage. However, with the growth of age and the expansion of one's social networks, the influence of

social and cultural factors becomes increasingly important on the individual, and women gradually tend to appear to be sentimental and sensitive (Mroczek & Kolarz, 1998). The fineness and susceptibility of women's emotions are probably one of the reasons why they experience more sense of loneliness. Certainly, on the aspect of emotion, whether or not there is no consistency between the gender differences of respectively the periods of children and adolescents yet needs further exploration and verification. Besides, since different questionnaire scales of the sense of loneliness are adopted by researchers in different surveys, the division of dimensions of the sense of loneliness also differs. This may result in the inconsistency of the results of the studies to a certain degree. For example, researchers who adopt self-made questionnaire for the sense of loneliness in the survey find that gender difference is differently reflected in different dimensions of the sense of loneliness, that scores given by male students for the sense of loneliness in interpersonal communication, social sense of loneliness, and the aggregate score of sense of loneliness are significantly higher than those by female students, but with significantly lower scores for self-sense of loneliness than female students (Jiang, Li, & Li, 2005). Therefore, questions such as whether or not there is a gender difference in the sense of loneliness, and if so what is causing the difference, still need further discussion in the future.

Besides, the result that "the emotionality of female students is significantly higher than that of male students" gained from the survey of temperament in this study is able partly to explain why female students experience more sense of loneliness than male students. "Emotionality" refers to the intensity of one's emotional reaction. Individuals apt to be upset and short-tempered are with high level of emotionality. The fact that emotionality of female students is significantly higher than that of male students can lead to the fact that petty things may cause their relatively intense emotional reaction, which can further increase their sensitivity to inner experience. Correspondingly, they will be more sensitive in terms of the inner experience of sense of

loneliness than that of male students. Comparing with male students who pay more attention to the outside world and are of relatively impassive in emotional reaction, female students have more opportunities to pay attention to their experience of sense of loneliness.

As to the discussion of parental rearing pattern, the gender of offspring undoubtedly has an enormous influence on the parental rearing pattern. Influenced by social and cultural factors, the society has different gender-role expectations and requirements for boys and girls. And when these are reflected in parents' educational concepts and patterns, it turns out that parents will also have different expectations to offspring of different genders and tend to shape the character of their offspring in different directions, which further results in specifically their different rearing patterns. This study suggests that fathers are more inclined to give their girls preference and boys severe punishment and over-protection, while mothers are more inclined to give their sons intervention and protection. This is in line with the characteristics of boys and girls and the gender-role standards for them as prescribed by the society. Since boys are generally more active, naughty and energetic and do more activity than girls, the dangerousness to which their bodies are exposed is relatively higher; meanwhile, the familial and social responsibilities required by the society to be entailed by boys are greater, which leads to the fact that they are faced with more rigid parental disciplining and more parental intervention and protection.

3.2 Grade and Major Difference in College Students' Sense of Loneliness

The result of Table 3 indicates that, comparing with students majoring in liberal arts, students majoring in science and engineering experience more sense of loneliness, especially in terms of the sense of loneliness in love. This is probably caused by the subjective and objective conditions of students majoring in science and engineering, who are averagely faced with heavy burdens in schoolwork and, moreover, characterized with the disproportion of female to male students in colleges or departments of science and engineering. These factors result in the fact that students majoring in science and engineering may be limited by the objective conditions in the process of development of their love relations, which further makes them emotionally less satisfied and experience more sense of loneliness in love than those majoring in liberal arts. On the aspect of subjective conditions, students majoring in science and engineering may lay more emphasis on rational thinking and have more opportunities to work with things. Thus, their affective interpersonal exchange and social communication are less than those of students majoring in liberal arts, which, to a certain degree, add to make them experience more sense of loneliness.

Significant grade difference is not verified in the sense of loneliness and its dimensions in this study, which is in

line with the results of studies by researchers including Li (2000) and Meng (2002). On one hand, the affective connection of freshmen to their families is closer than that of students of other grades, and the affection given by their families probably makes up to a certain degree for the sense of loneliness they are likely to experience in social communication in the new environment. Meanwhile, freshmen are curious to everything around them; and their interpersonal communications are relatively simple and natural; and their states of mind are more open and their emotions are more positive. On the other hand, although students of other grades have had a certain range of social circle, as their burdens in schoolwork become heavier and their curiosity keep reducing, they come to pay more attention to their own developments and think more about their employment and future. The complexity of their interpersonal communication and thoughts may probably make them experience the sense of loneliness more profoundly. There are various advantageous and disadvantageous factors of both freshmen and students of other grades interacting and counteracting with each other, which is likely to result in the fact that the difference of their sense in loneliness is insignificant.

3.3 Relationship Among Temperament Type, Parental Rearing Pattern and the Sense of Loneliness

3.3.1 Temperament Type and Sense of Loneliness

From the result of the correlation analysis, we can see that there are significant positive correlations between sociality and the sense of loneliness in kinship, the sense of loneliness in love, the sense of loneliness in social communication, and the overall sense of loneliness. And the result of regression analysis further indicates that sociality has a significant predictive effect on the sense of loneliness in love and is capable of explaining 8.2% of its variations. "Sociality" refers to one's popularity and the characteristics of his or her getting on with others. Individuals with strong sociality are likely to find playmates and are fond of and easy to respond to others; they have many friends and are enthusiastic in social communication. "When a social network is smaller or more unsatisfying than that in one's expectation, the sense of loneliness emerges." (Jerry & Burger, 2000) Therefore, social connection is a key factor causing the emergence of the sense of loneliness. Individuals with strong sociality are extrovert, fond of participating in social activities, willing to actively build relationships with others, and also more sensitive to others' emotional reaction and prone to react actively, that's why the emotional supports and stable connections they get from their familial and social lives are remarkably more than those individuals with weak sociality can get. Their positive and active characteristics and sensitivity to others' reaction are all favorable factors for them to build satisfactory interpersonal relationships and make them experience less sense of loneliness. To college students, most of them have

limited time to contact and communicate with their family members, therefore, it is observed that sociality is more closely related with the sense of loneliness in love than with the sense of loneliness in kinship and with social sense of loneliness.

3.3.2 Parental Rearing Pattern and the Sense of Loneliness

Besides, this study also suggests that many factors of parental rearing pattern are significantly related with dimensions of the sense of loneliness of college students and have a predictive effect on it. Generally speaking, adopting positive rearing patterns, such as parental emotional warmth and understanding can make the children experience less sense of loneliness in kinship, less social sense of loneliness and less overall sense of loneliness. By contrast, negative rearing patterns, such as paternal severe punishment, paternal refusal and denial, maternal refusal and denial, maternal over-intervention and over-protection can make the children experience more sense of loneliness. This study in this regard is in line with existing studies, for example, studies done by Meng et al. (2000) find that “the sense of loneliness of college students is significantly negatively correlated with parental emotional warmth and understanding and positively correlated with maternal severe punishment and paternal severe punishment”. Moreover, from the result of Table 5 we can see that, on one hand, paternal severe punishment is capable of predicting the increase of college students’ sense of loneliness in kinship with an interpretation ratio of 10.5%; on the other hand, it can also predict the reduction of their sense of loneliness in love, but nevertheless with a relatively lower interpretation ratio. Maternal over-intervention and over-protection, on one hand, can predict the reduction of college students’ sense of sense of loneliness in kinship and, on the other hand, is capable of predicting the increase of the college students’ sense of loneliness in social communication. This is probably because that college students who experience paternal severe punishment and therefore experience the sense of loneliness in kinship are more inclined to seek another close emotional connection as compensation and thus are probably inclined to seek for emotional sustenance in love, which results in the fact that this kind of students experience less sense of loneliness in love. Although maternal over-intervention and over-protection may contribute to the offspring’s experiencing of less sense of loneliness in kinship, they are to some extent likely to be adverse to the development of the offspring’s social skills and the establishment of their social networks, and these may possibly make them vulnerable to the sense of loneliness in social communication.

There have been studies on rearing pattern suggesting that parental rearing pattern may have an effect on many aspects of the offspring, including their socialization, personality formation, interpersonal relationship, and school performance. A positive and good rearing pattern

can greatly facilitate the physical and psychological health of the offspring and their future success in social life. The lonely experience of college students is linked with their temperament, personality and psychological health level. Therefore, the rearing pattern may have an effect on the level of college students’ sense of loneliness to a great degree. When a positive rearing pattern is adopted by parents, the interaction and emotional communication between parents and their offspring can be positive and nice. Meanwhile, the offspring are able to apply the positive experience obtained from and the effective communication method acquired in their family to their own social communication, which will facilitate building of their social network and make them experience less sense of loneliness.

To sum up, the characteristics of college students’ sense of loneliness are different due to different genders and disciplines and are closely related with their temperament type and parental rearing pattern. These results indicate that, on one hand, psychological workers at higher education institutions need to provide relevant tutoring strategies based on the different characteristics of the sense of loneliness of college students of different genders and disciplines and their relevant influencing factors; on the other hand, workers not only need to effectively prevent the emergence of college students’ sense of loneliness and intervene in the sense of loneliness of college students from the viewpoint of troubleshooting, but also need to provide step-by-step, targeted emotional education and social communication training for college students from the viewpoint of development, so as to positively promote their psychological health.

CONCLUSION

This study reaches are as follows:

(a) female college students experience more sense of loneliness both in kinship and overall than male students, and are more emotionally inclined in respect of temperament type; the scores reflecting the sociality of college students from urban areas is remarkably higher than that reflecting the sociality of students from rural areas; disciplinary difference is significantly reflected in students’ sense of loneliness both in love and overall, that students majoring in science and engineering experience more sense of loneliness, especially in love.

(b) Dimensions of the sense of loneliness of college students are significantly correlated with the sociality in their temperament types and most of the factors of their parental rearing pattern.

(c) Maternal emotional warmth has a significant predictive effect on the overall sense of loneliness; maternal emotional warmth, paternal severe punishment, and maternal interference and protection have a significant predictive effect on factors of the sense of loneliness in kinship; sociality and paternal severe punishment

have a significant predictive effect on factors of the sense of loneliness in love; maternal emotional warmth, maternal interference and protection, as well as paternal interference, have a significant predictive effect on factors of the sense of loneliness in social communication.

REFERENCES

- Buss, A. H., & Plomin, R. (1986). The EAS approach to temperament. *The study of temperament* (pp.67-79). Hillsdale, NJ: Erlbaum.
- Dykstra, P. A., & de Jong, G. J. (1999). Differential indicators of sense of loneliness among elderly. *Tijdschrift Voor Gerontologie en Geriatric*, 30, 212-225.
- Enrico, T., & Barry, S. (1997). Social and emotional sense of loneliness: A re-examination of weiss' typology of sense of loneliness. *Personality and Individual Differences*, 23(3), 417-427.
- Enrico, D., Cyndi, B. M., & Rossb, L. (2003). Attachment styles, social skills and sense of loneliness in young adults. *Personality and Individual Differences*, 35, 303-312.
- Helen, C., & Adrian, F. (2002). Personality, peer relations, and self-confidence as predictors of happiness and sense of loneliness. *Journal of Adolescence*, 25, 327-339.
- Jerry, M., & Burger, J. M. (2000). *Personality psychology* (H. C. Chen, Trans.). Beijing: China Light Industry Press.
- Jiang, Y. J., Li, Y. M., & Li, X. W. (2005). The preliminary study of the structural characteristics of the sense of loneliness of college students. *Psychological Science*, 28(3), 690-693.
- John, T., Cacioppo, U., & John, M. (2000). Lonely traits and concomitant physiological processes. *International Journal of Psychophysiology*, 35, 143-154.
- Joubert, C. (1987). Need for uniqueness correlates of sense of loneliness and social interest. In M. Hojat & R. Crandall (Eds.), *Sense of loneliness: Theory, research, and applications* (pp.187-190). Newbury Park, California: Sage Publishing.
- Ka-on, M. (1998). The relationship between attachment prototypes, self-esteem, sense of loneliness and causal attributions in chinese trainee teachers. *Personality and Individual Differences*, 24(3), 357-371.
- Karin, H. (2002). Sense of loneliness, health and social network among elderly people-a follow-up study. *Archives of Gerontology and Geriatrics*, 35, 261-274.
- Kenneth, M., & Cramera, H. B. (2000). An abbreviated form of the Social and Emotional Sense of Loneliness Scale for Adults (SELSA). *Personality and Individual Differences*, 28, 1125-1131.
- Kenneth, M., & Cramer, J. E. (2001). Conceptualizations and measures of sense of loneliness: A comparison of subscales. *Personality and Individual Differences*, 27, 491-502.
- Li, C. Y. (2000). The analysis of the lonely psychology of 549 college students and relevant factors. *Chinese Journal of Behavioral Medical Science*, 9(6), 429-435.
- Li, J., Zhang, L. F., & Li, Y. Z. (2002). The influence of parental rearing pattern and social supports on the sense of loneliness of blind children. *Psychological Science*, 25(4), 493-495.
- Li, C. Y., et al. (1998). The comparative study on the sense of loneliness and depression of junior college students and secondary specialized school students. *China Journal of Health Psychology*, 6(1), 86-87.
- Luo, G. L., Ruan, J. H., & Lou, C. L., et al. (1999). The survey and analysis of the lonely psychology of college students. *Journal of Zhejiang University (Science Edition)*, (7), 113.
- Meng, J. (2002). The survey of the conditions of the sense of loneliness of 533 college students. *China Journal of Health Psychology*, 10(2), 113-116.
- Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: A development perspective on happiness. *Journal of Personality and Social Psychology*, 75(5), 1333-1349.
- Peplau, L. A., & Perlman, D. (1982). *Sense of loneliness: A Sourcebook of current theory, research and therapy* (1-18). New York: Wiley.
- Peter, M., Theo, P. B., & Surmeijer, M. (2001). The effects of neighborhoods on size of social network of the elderly and sense of loneliness: A multilevel approach. *Urban Studies*, 38(1), 105-118.
- Peter, M., Theo, P. B., & Surmeijer, M. (2001). The effects of neighborhoods on size of social network of the elderly and sense of loneliness: A multilevel approach. *Urban Studies*, 38(1), 105-118.
- Samuelsson, G., & Andersson, L. (1998). Sense of loneliness in relation to social, psychological and medical variables over a 13-year period: A study of the elderly in a Swedish rural district. *Health Aging*, 4(3), 361-378.
- SingLau, L., Dennis, W. K., & Patrick, S. Y. (1999). Facets of sense of loneliness and depression among Chinese children and adolescents. *The Journal of Social Psychology*, 139, 713-725.
- Wang, X., Ruan, X., & Ruan, J. (2004). The correlational study on parental rearing pattern and college students' self-esteem. *Chinese Journal of Clinical Psychology*, 12(3), 309-310.
- Wang, X. D., Wang, X. L., & Ma, H. (1999). The manual of evaluation scales for psychological health. Revised and Enlarged Edition. *Chinese Mental Health Journal*, 164-167.
- Weiss, R. S. (1973). *Sense of loneliness: The experience of emotional and social isolation*. Cambridge, Massachusetts: The MIT Press.
- Xin, Z. Q., & Chi, L. P. (2003). The relationship between family function and sense of loneliness of children. *Acta Psychologica Sinica*, 35(2), 216-221.
- Yu, G. L., Xin, Z. Q., & Luo, X. L. (2000). The sense of loneliness of children with learning disabilities, the characteristics of the acceptability of peers, and their relationships with family function. *Acta Psychologica Sinica*, 32(1), 59-64.
- Zhou, Z. K., Zhao, D. M., & Chen, J., et al. (2003). Study on the relationship among the social status, self-perceived social competence and sense of loneliness of children in middle childhood. *Psychological Development and Education*, 32(4), 70-74.