

Depressive Mood Of Chinese Only Children In Senior Middle School From Different Families: An Open Pilot Study.

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ABSTRACT

Some psychological problems of Chinese senior middle school students are linked with school academic factors, whether they are related to family factors remains unknown. In a senior middle school in Hangzhou, China, we have trialed the Plutchik – van Praag Depression Inventory (PVP) in 78 only-children students: 52 from intact, 15 from single-parent and 11 from reunited families. Most students perceived their biological parents as their first two caregivers, but their caregiver orders did not influence the depressive tendency in either group. Students from single-parent families were more depressed than those from other families, while students from reunited families reported their PVP scores similarly to those from the intact families did. Our study has demonstrated that senior middle school students from single-parent families, on average, reported higher level of depression, while those from reunited families had not, implying that entering a reunited family after divorce could be a complimentary strategy for students to normalize their depression scores. As an open pilot design (the first author is a senior middle school student), our study calls for a comprehensive design to illustrate the psychological world in this aspect.

Keywords: *China; Depression; Reunited family; Senior middle school students; Single-parent family*

Introduction

Juvenile delinquency is not uncommon all over the world including China (Bao et al., 2004; Murray et al., 2012), and some adolescent criminals are suffering from psychological or behavioral problems (Ryan & Redding, 2004; Townsend et al., 2010). Many factors contribute to the juvenile crimes, family factor apparently plays an important role in the development of these problems (Suwa et al., 2003). In recent years, for instance, the divorce rate increases in Europe (Eurostat, 2011) and in China (Yi & Liang, 1993) which have created more family problems. Moreover in China, the one-child policy which is believed linked with the productive health, family burden, and gender balance (Tu, 1996), might be connected with the psychological stress perceived by the adolescents.

Although most Chinese families remain intact, some of them were broken or afterwards reunited (Yi & Liang, 1993). Similar to those in Europe (Eurostat, 2011), the single-parent families are prominent recently in China (Liu, 1998). Apparently, family structures influence the parenting styles. Although there are many similarities between paternal and maternal bonding patterns, the paternal involvement is crucial in the psychological development of offspring (Kerr et al., 2009). Other studies have shown that mothers often act as secure base while father as a challenging but reassuring play partner (Lieberman et al., 1999; Verschueren & Marcoen, 2005). Students who have parents really caring about their education are usually more successful than those who do not have (Simon, 2004; Riala et al., 2003). In addition, the balanced family types such as the intact one are positively related to authoritative parenting and negatively related to authoritarian parenting (Liu et al., 2008). However, in divorced and divorcing families, parents are not able to cooperate in parenting in the ways intended by the courts (Kitzmann & Emery, 1994; Turkat, 2002). Even though some offspring of single-parent families do psychologically well in adulthood, the negative effect of single parenthood is persistent even in late adulthood (Liu et al., 2000; Riala et al., 2003; Nunes-Costa et al., 2009; Kleinsorge & Covitz, 2012). There are even more converging evidence supporting that the inappropriate parenting fosters the development of psychological disorders of children (Enns et al., 2002; Parker & Benson, 2004; Aunola & Nurmi, 2005; Wang et al., 2006). The problems include depression, anxiety, eating disorder, sleep disorder, or self-injurious behaviors (Scaramella & Conger, 2003; McLeod et al., 2007; Lee & Hankin, 2009; Weich et al., 2009; Fujimori et al., 2011).

Considering that in contemporary China, besides the possible social burden to the children which is related to the one-child policy, such as tending parents after getting married (Tu, 1996), one might easily ask whether these children could adjust themselves well when they are demanded to play an important role in society. For instance, in the transition period of adolescence, majority of Chinese adolescents are in senior middle school and have to face the Chinese university entrance examination. Several studies have demonstrated that factors from school such as passing the university entrance examination, contributed to the anxiety and depression of the senior middle school students (Hesketh et al., 2002; Hesketh & Ding, 2005). However, up to the present, there is no study showing how different family structures affect the psychological world of the Chinese senior middle school only-children, for instance, depression.

We therefore have hypothesized that adolescents in Chinese senior middle school from different families (intact, single-parent and reunited) would report different depressive trends. Due to the

possibly unbalanced parenting from biological parents, students in single-parent and reunited families, might display higher depressive trend than those in intact families. Moreover, students who perceived more paternal involvement might display less depressive trend than those who perceived more maternal involvement. We have asked some only-children students from a senior middle school to rate the caregiver order of their biological parents and to undergo the Plutchik – van Praag Depressive Inventory (PVP, Plutchik & van Praag, 1987).

Methods:

Participants

Seventy-eight students (only children) from a senior middle school (42 girls and 36 boys, age range 16-19) were invited to participate in the current study. Fifteen participants were from single-parent families (single-parent group; 7 girls and 8 boys; mean age 16.73 years old with 1.22 S.D.), 11 from reunited families (reunited group; 8 girls and 3 boys; mean age 17.00 ± 1.11), and 52 from intact families (intact group; 27 girls and 25 boys; mean age 17.25 ± 1.31). Students of single-parent or reunited groups were invited based on their school registration information, and those from the intact group were randomly selected from the remaining students, who were double in size as the other two groups together. There were no statistically significant differences of age (group effect, $F(2, 75) = 2.09$, $p = 0.13$, $MSE = 1.64$) and gender distributions ($\chi^2(2) = 1.97$, $p = 0.37$) among three groups. A semi-structured interview was performed with each participant to ensure that they were not suffering from any neurological problems. They took no medication at least 2 weeks prior to the study and had given their written/ oral informed consent. The study was approved by a local Ethic Committee.

Procedures

Participants were asked to sort the order of their first four caregivers according to the relationship intimacy between them and the caregiver, from the most intimate one (designated as caregiver 1) to the least (caregiver 4). A caregiver might be the guardian or custodian in a family, but not always.

Each participant also underwent the Plutchik-van Praag Depression Inventory (PVP; Plutchik & van Praag, 1987). Each of the 34 items PVP is scored 0, 1, or 2, corresponding to increasing depressive tendencies. Participants have “possible depression” if they score between 20 and 25, or “depression” if they score above 25. According to a recent study (Wang et al, 2002), the internal reliability of the inventory was 0.94 in a Chinese sample.

Data analyses and Statistics

Only data regarding biological parents as either caregiver 1 or caregiver 2 were retained for further analyses (see Results section below). Mean PVP scores in three groups were analyzed by one-way ANOVA with post-hoc test of the Duncan multiple new range test. Mean PVP scores regarding parents as caregiver 1 or caregiver 2 were analyzed by the independent Student *t* test. A *p* value less than 0.05 was considered as significant.

Results

Most participants perceived their biological parents as their first and second caregivers (Table 1). Due to the small numbers of participant who perceived either grandfather, grandmother, or others as caregiver 1 or caregiver 2, we excluded the data from them. Subsequent analyses were only performed on the data regarding biological parents as either caregiver 1 or caregiver 2.

There were statistically significant-different group differences regarding PVP scores (main effect, $F [2, 75] = 3.54, p = 0.034, MSE = 254.10$). Participants in single-parent group scored significantly higher on PVP than those in intact and in reunited groups. Individual data told that there were some participants who scored more than 25 on PVP and considered depressed (Table 2). Whether in all groups or especially in single-parent group, when regarding the caregivers perceived, participants who perceived father scored on PVP similarly to those who perceived mother did (Table 3).

Discussion

Most students perceived their biological parents as their first two caregivers, even in single-parent or reunited group, and their caregiver orders did not influence the depressive tendency of students. Students from single-parent group were more depressed than those from other groups, while students from the reunited group reported PVP scores were similar to those from the intact group did.

Our results are in line with that the balanced parenting in intact families is positively related to the healthy wellbeing of offspring (Liu et al., 2008), and with that the divorced families deliver poor adjustment to their offspring (Amato, 1994; Maris, 1997; Liu et al., 2000; Riala et al., 2003; Nunes-Costa et al., 2009; Kleinsorge & Covitz, 2012). The depression levels we found in students from single-parent group were similar to those reported by offspring from poor parenting families (Enns et al., 2002; Scaramella & Conger, 2003; Parker & Benson, 2004; Aunola & Nurmi, 2005; Wang et al., 2006; McLeod et al., 2007; Lee & Hankin, 2009; Weich et al., 2009; Fujimori et al., 2011). Although as a great limitation, we did not measure the detailed parenting bonding styles in different families, our results still imply that entering a reunited family might normalize the depression scores of divorce students.

Contrary to one of our hypotheses, in the single-parent group, we did not detect any statistically significant difference of depression level between students who perceived father and mother as their caregivers. The non-significant finding was in line with an investigation showing the similar secure attachment perceived from father and mother by their children (Al-Yagon, 2011). However, our study is an open pilot study, the small numbers in the single-parent group only produce a non-significant, different trend ($p = 0.075$, Table 3) of depression levels between the two subgroups. Whether a larger sample could present a significant difference of this kind remains unanswered.

One still have to bear in mind other limitations of our study design. Firstly, we only measured depression levels of these students, other factors such as personality trait, academic performance, interpersonal relationship, and financial situation were not noted. Secondly, the first author of the paper is a senior middle school student, her limited time and energy had restricted the current study to be an open pilot one. Nevertheless, our study has demonstrated that the senior middle school

students from single-parent group, on average, reported higher level of depression, while those from reunited group had not, implying the reunifying of a family after divorce could be a complimentary strategy to normalize their depression scores. A more comprehensive study with detailed parental bonding description might be further designed to illustrate the psychological world of senior middle school students in China.

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Table 1. Caregiver distributions in three groups of student.

	Intact family (n = 52)		Single-parent family (n = 15)		Reunited family (n = 11)	
	Caregiver 1	Caregiver 2	Caregiver 1	Caregiver 2	Caregiver 1	Caregiver 2
Father	26	22	7	4	3	2
Mother	18	26	8	4	4	3
Grandfather	6	1	0	1	2	2
Grandmother	0	2	0	2	1	0
Others	2	1	0	1	1	2

Table 2. Group scores (mean \pm S.D.) and numbers of depressed individual (and their scores) of the Plutchik – van Praag Depression Inventory in three groups of student.

	Mean	p vale	Number (individual score)
Single-parent	19.27 \pm 11.65		4 (27, 30, 33, and 50)
Intact	12.75 \pm 7.52*	0.036	3 (29, 30, and 34)
Reunited	13.00 \pm 7.77*	0.030	1 (32)

Note: * $p < 0.05$ vs. Single-parent group.

Table 3. Scores (mean \pm S.D.; with sample sizes in parentheses) of the Plutchik – van Praag Depression Inventory regarding biological parents perceived as caregivers in all groups and especially in the single-parent group.

	Father	Mother	p value
All groups			
Caregiver 1	13.39 \pm 7.86 (n = 36)	14.67 \pm 9.38 (n = 30)	0.749
Caregiver 2	15.61 \pm 10.29 (n = 28)	13.24 \pm 7.99 (n = 33)	0.245
Single-parent group			
Caregiver 1	16.86 \pm 6.79 (n = 7)	21.38 \pm 14.86 (n = 8)	0.087
Caregiver 2	32.5 \pm 12.82 (n = 4)	16.25 \pm 9.33 (n = 4)	0.652