Psychobehavioral Effects of Divorced Mother-headed One-child Families on Children in China

Jianxin ZHANG^{*1,2}, Shunichi ARAKI^{*1}, Hajime SATO^{*1} and Kazuhito YOKOYAMA^{*1}

^{*1} Department of Public Health and Occupational Medicine, Graduate School of Medicine, The University of Tokyo

^{*2} Present Address: Department of Child and Adolescent Health, School of Public Health, West China University of Medical Sciences

Abstract

Owing to the national "One Child per Family" policy in China, almost all children are from one-child families. Recent economic development has led to an increase in the number of children living in single parent families. These children may suffer from more mental stress than those living in two parent families. This study aims at clarifying psychobehavioral characteristics of boys and girls from mother-headed one-child families due to divorce.

Three questionnaire studies, i.e., Eysenck Personality Questionnaire for Children (EPQ), Mental Health Test (MHT), and Preliminary Problems Conduct Test (PPCT) were conducted on 465 children, aged 9 to 12 years, in three elementary schools of Chengdu, China. Twenty-one boys and 26 girls from divorced families and 186 boys and 217 girls from non-divorced families were selected as study subjects.

The results of the multiple stepwise logistic regression analysis indicated that boys from divorced families suffered from neurosis, loneliness, impulsiveness, rebellious tendencies and untruthfulness, whereas girls from divorced families suffered from loneliness, horrible feelings and oppressed feelings.

It is suggested that the common psychobehavioral characteristic of both boys and girls from divorced families in China is loneliness; the characteristic specific of boys is "antisocial" personality and that of girls is "anxious" personality.

Key words: divorce, psychobehavioral effect, children, one-child policy, China

In China, women used to be seriously condemned when divorced.¹ Recently, following modernization and economic development, a conflict between conventional and modern lifestyles has emerged. In consequence, many husbands and wives could not continue their unsatisfactory marriages;² the divorce rate has increased from 0.3‰ (1978) to 1.67‰ (1994).^{3,4} Thus, the number of children living in divorced single parent families has also increased.

Previous studies in Western countries indicate that the mental health and behavior of children are affected by parents' divorce.^{5,7} It appears that these children suffer from more mental stress than those living with two parents.^{8,9} They may receive less attention, help or life-guidance from their parents.¹⁰ A longitudinal study¹¹ has indicated that a single parent family is one of the six most important risk factors for the mental health of children. Children who have experienced the divorce of their parents and have lived in single parent families may have a variety of mental and behavioral problems.^{6,7,12-16} The problems are

described in specific terms as psychopathology,¹² psychic trauma, anxiety,¹³ psychiatric disorder⁷ and phobias⁶. Poor school performance,⁷ anger, loneliness,⁶ undercontrol of impulse, aggression and abundant but misguided energy,¹⁴ juvenile smoking,¹⁵ and aggressiveness, somatic complaints, obsessive-compulsiveness, uncommunicativeness and delinquency¹⁶ are also used to describe the problems.

Furthermore, previous studies report that loneliness is a trait of boys and girls from single parent families.^{6,10,17} Also, antisocial behavior is associated with boys in single parent families,^{16,18,19} as well as with girls living in single parent families due to divorce and headed by fathers;¹⁸ neurosis is associated with the boys¹⁵ and children¹⁰ in single parent families; and the boys and girls from single parent families are reported to be anxious, worrisome and withdrawn.^{6,20,21}

Research²² comparing scores of Achenbach (Child Behavior Checklist) between children in divorced families and a control group in China showed that the former had lower scores of positive factors and higher scores of negative factors, but it failed to reveal the gender difference and the characteristics. In this study, we investigated psychobehavioral characteristics in children from single parent families due to divorce and headed by mothers in China. For this purpose, three questionnaire studies were conducted in boys and girls in their 4th year of elementary school

Received May 17 1999/Accepted Jul. 23 1999

Reprint requests to: Shunichi ARAKI,
Chairman, Department of Public Health and Occupational Medicine,
Graduate School of Medicine, The University of Tokyo, Japan.
Honggo 7-3-1, Bunkyo-ku, Tokyo 113-0033, Japan
TEL & FAX: +81(3)3816-4751

in Chengdu, China.

Subjects and Methods

Subjects

Three schools were randomly chosen from 168 selected urban elementary schools (directly subordinate to the Government Education Committee) in Chengdu (population, 2.95 million), the capital of Sichuan Province, located in the southwest of China. A total of 465 children in their 4th year of school completed the questionnaires described below. Seven of the children were excluded as they were from either reconstituted families (parents remarried), single parent families by reasons other than divorce, or no parents. Of the remaining 458 children, 21 boys, aged 9.5 to 10.7 (mean 10.0) years, and 26 girls, aged 9.3-10.7 (mean 9.8) years, were from single parent families due to divorce and headed by mothers (study group); eight children were from single parent families due to divorce and headed by fathers and these children were excluded from the study group because of the small sample size. The remaining 186 boys, aged from 8.8 to 10.8 (mean 10.0) years, and 217 girls, aged from 8.8 to 11.7 (mean 9.9) years, were from two-parent families (control group). All children in the single and two parent families were from one child families owing to the family planning policy in China, viz., "One Child per Family," which was introduced in 1979. The children studied were in the same class in the three schools, respectively, and their family's income and living standards were nearly the same, i.e., of a middle-class level.

The marital status of the children's parents was obtained from the registration records in the schools at the beginning of the school term and confirmed by interviews with parents. The exact duration during which the children had been living in single parent families could not be clarified because it was a sensitive matter both for mothers and for children.

Psychological tests

With the permission of the parents of the children, three Chinese versions of self-administered questionnaires, viz., Eysenck Personality Questionnaire for Children (EPQ),²³ Mental Health Test (MHT)²⁴ and Preliminary Problems Conduct Test (PPCT)²⁵ were given to the children in their classrooms by the first author (J.Z.) with the help of the school staff. The subjects read the three questionnaires and filled out their answer sheets by themselves. The response rate was 100% for all questionnaires. The Cronbach's alphas for the EPQ, MHT and PPCT in this sample were 0.702, 0.702 and 0.733, respectively.

Eysenck Personality Questionnaire for Children (EPQ): This test was developed by the Hunan Medical University in China and contains 88 question items divided into four different personality traits as follows: psychosis tendency (psychosis), extroversion or introversion tendency (extroversion), neurosis tendency (neurosis), and lying tendency of the subjects' respondent to the questionnaire (untruthfulness). The subjects were asked to answer question items with "yes" or "no." According to their answers and EPQ norms of Chinese (normal distribution of EPQ answers in Chinese), standard scores for each personality scale were obtained.²³

Mental Health Test (MHT): This test was developed by the East China Normal University,²⁴ including 90 question items classified into nine mental patterns, i.e., tendency to learning anxiety in school (learning anxiety), tendency to social anxiety,

stress, worry and nervousness (social anxiety), solitary emotion or feelings of loneliness (loneliness), tendency for the subjects to condemn themselves (self-condemnation tendency), tendency to sensitiveness (sensitiveness), vague general physical complaints (vague complaints), tendency to horror (horrible feelings), emotional or behavioral tendency toward impulsiveness (impulsiveness), and lying tendency in their response to questionnaires (untruthfulness). The subjects were asked to answer the question items with "always," "sometimes" or "hardly ever or never." Each answer was evaluated with the score 0, 0.5 or 1.0, which corresponded to the answers of "hardly ever or never," "sometimes" or "always," respectively.

Preliminary Problems Conduct Test (PPCT): The test was also developed by the East China Normal University,²⁵ comprising 80 question items composed of seven behavioral patterns, i.e., tendency to loneliness (loneliness), behavioral characteristic of easy loss of tolerance when one's request or demand is not satisfied (low tolerance), behavioral characteristic of lack of academic achievement eagerness (lack of desire for achievement), tendency to being oppressed (oppressed feelings), behavioral tendency to resistance or rebellion to authority (rebellion tendency), lack of behavioral enthusiasm for school learning (lack of learning enthusiasm), and lying tendency of subjects' respondent to the questionnaire (untruthfulness). The subjects were asked to answer the question items with "always," "sometimes" or "hardly ever or never." Each of the items was evaluated with scores. Scores of 1.0, 2.0 and 3.0 were given to the answers of "hardly ever or never," "sometimes," and "always," respectively.

Statistical analysis

The Student's t-test was used to examine the differences in EPQ, MHT and PPCT scores between children from single parent families and the control children. Multiple stepwise logistic regression was performed in children from single parent families due to divorce and headed by mothers and children from control families in order to examine which of the EPQ, MHT and PPCT scales could predict the family status, where the criterion variable was depending on whether the child was from a single parent family or from a control family (single=1 and control=0) and the predictor variables were 20 scores on the EPQ, MHT and PPCT. All statistical analyses were performed by the Statistical Package for Social Sciences (SPSS) version 6.1 (SPSS Inc.).

Results

Scores of EPQ, MHT and PPCT in children from single parent families due to divorce and headed by mothers and the control children are shown in Table 1. In both boys and girls, scores in psychosis and neurosis of EPQ of children from single parent families were significantly higher than those of the control children; scores of untruthfulness of the former children were significantly lower than those of the latter children. Similarly, of both boys and girls, scores of social anxiety, loneliness, horrible feelings and impulsiveness of MHT were significantly higher by children from single parent families headed by mothers; all scales of PPCT except untruthfulness were significantly higher in children from single parent families, by whom scores of untruthfulness were significantly lower. The score of extroversion of EPQ was significantly lower only for boys from single parent

Table 1 Differences in EPQ, PPCT and MHT scores between children from single parent families headed by mothers (21 boys and 26 girls) and the control children (186 boys and 217 girls): Mean values with standard deviations in parentheses

	Boys		Girls	
	Single parent families	Control families	Single parent families	Control families
EPQ^a				
Psychosis	55.2 (8.9) ***	46.1 (6.8)	56.9 (16.3) **	44.5 (8.7)
Extroversion	42.9 (9.3) ***	52.6 (10.9)	49.4 (8.6)	53.5 (12.2)
Neurosis	61.7 (8.6) ***	45.1 (8.4)	58.1 (8.7) ***	42.1 (8.6)
Untruthfulness	47.9 (7.3) **	53.5 (9.0)	37.9 (15.8) ***	53.2 (8.9)
MHT^b				
Learning anxiety	4.4 (4.0)	5.0 (2.5)	5.5 (3.7)	4.4 (2.3)
Social anxiety	5.6 (2.0) ***	3.1 (2.0)	5.0 (1.9) ***	2.7 (1.7)
Loneliness	4.5 (2.2) ***	1.8 (1.4)	3.1 (2.2) **	1.5 (1.4)
Self-condemnation tendency	4.7 (2.3)	4.3 (1.9)	5.9 (2.4) ***	4.1 (2.2)
Sensitiveness	5.3 (2.0)	4.6 (1.9)	5.3 (2.7) **	3.7 (2.0)
Vague complaints	5.1 (3.1)	4.4 (2.1)	3.5 (2.7)	3.7 (2.0)
Horrible feelings	5.2 (2.4) ***	2.1 (2.0)	5.2 (2.5) ***	2.0 (2.1)
Impulsiveness	5.4 (1.6) ***	2.4 (2.1)	5.0 (2.3) ***	1.5 (1.7)
Untruthfulness	4.3 (2.0)	4.1 (1.8)	3.3 (2.2) *	4.3 (1.8)
PPCT^c				
Loneliness	24.2 (6.8) ***	15.4 (8.8)	20.0 (7.4) ***	12.5 (8.2)
Low tolerance	21.6 (5.5) ***	12.7 (6.5)	19.2 (7.8) ***	9.5 (5.4)
Lack of desire for achievement	21.3 (10.2) ***	10.2 (8.5)	19.4 (7.6) ***	8.2 (6.7)
Oppressed feelings	22.8 (8.1) ***	9.6 (6.9)	19.0 (8.2) ***	6.5 (5.9)
Rebellion tendency	19.7 (7.0) ***	11.0 (4.9)	15.6 (5.2) ***	10.6 (5.1)
Lack of learning enthusiasm	16.2 (7.6) ***	7.5 (6.1)	13.5 (6.4) ***	6.6 (5.5)
Untruthfulness	8.0 (3.0) ***	13.3 (3.4)	9.7 (3.5) ***	14.0 (3.9)

^aEysenck Personality Questionnaire for Children. ^bMental Health Test. ^cPreliminary Problems Conduct Test.

*, **, and ***: $p < 0.05$, < 0.01 , and < 0.001 (Student's *t*-test).

families. On the other hand, only for girls from single parent families, scores of self-condemnation tendency and sensitiveness of MHT were significantly higher and the score of untruthfulness was significantly lower.

Results of the multiple stepwise logistic regression analysis are shown in Table 2. Neurosis of EPQ, loneliness and impulsiveness of MHT and rebellion tendency of PPCT had significantly positive relationships with the boys from single parent families; untruthfulness of PPCT had a significantly

inverse relation with the boys. On the other hand, horrible feelings of MHT, and loneliness and oppressed feelings of PPCT were significantly positive relationships with the girls from single parent families.

Discussion

Results of the multiple logistic regression analysis indicated that both Chinese boys and girls from single parent families headed by mothers develop feelings of loneliness. Also, the boys were characterized by "antisocial" personality (i.e., rebellion tendency, impulsiveness), neurosis and low untruthfulness; the girls were by "anxious" personality (i.e., horrible and oppressed feelings).

It is assumed that parental withdrawal of interest in children due to preoccupation with their own needs, and a reduction of emotional availability, attention span and time with the children resulted in the children in single parent families having feelings of being left outside, powerlessness and having a peripheral role in major family decisions.⁶ These were probably associated with feelings of loneliness in the children in maturational achievement and grown-up expectation of mutuality with parents.⁶ Samuelsson¹⁰ reported that in single parent families there was a strong association between the numbers of parents' friends and their children's friends. This indicated that the parents' depressive symptoms and social behavior created a dull family environment.⁸ Additionally, the children in their teenage years tended to blame themselves for their parents' divorce.¹⁷ The sense of guilt might

Table 2 Results of multiple logistic regression analysis for children from mother-headed one-child families due to divorce (21 boys and 26 girls) and control children (186 boys and 217 girls)^a

Independent variables ^b	Regression coefficients	Significance (p)
Boys:		
Neurosis (EPQ)	0.142	0.019
Loneliness (MHT)	0.672	0.015
Impulsiveness (MHT)	0.750	0.025
Rebellion tendency (PPCT)	0.195	0.016
Untruthfulness (PPCT)	-0.428	0.013
Girls:		
Horrible feelings (MHT)	0.930	0.000
Loneliness (PPCT)	0.177	0.001
Oppressed feelings (PPCT)	0.315	0.000

^aCriterion variables are 0 for control children and 1 for children from mother-headed one-child families due to divorce.

^b20 variables as in Table 1; EPQ, MHT and PPCT as in Table 1.

have induced feelings of loneliness. It appears that feelings of loneliness are the most common characteristics in boys and girls not only in Western countries but also in China.

Antisocial behavior is an abstract concept which is related to many concrete behaviors. In the present study, impulsiveness and a rebellious tendency was labeled as "antisocial" personality in the boys. Parents' conflicts before and after divorce and poor parent-child relationships might have caused this personality.¹⁸ It is reasonable to associate the antisocial behavior with the level of family conflict.⁵ The antisocial behavior should be partly associated with the children's anger with their parents.⁶ Loss of traditional authority and limits for the children's behavior, which were exercised by the father, is also attributed to the antisocial behavior, especially for boys.¹⁵ Block et al.¹⁴ reported that the behavior of such boys is characterized by undercontrol of impulse, aggression, and abundant but misguided energy. Being raised solely by a parent of the opposite sex may adversely affect the psychosocial development of the boys.¹⁶ Antisocial behavior is found to have an association with depression and stress.¹⁹ So, the boys with loneliness and a neurosis who were from single parent families headed by mothers tended to develop an antisocial behavior trait.

Neurosis was also found to be one of the personality traits in boys from single parent families in the present study. This could be attributed to the experience of family crisis, chronic stress of daily life, unhealthy living environment and disappointment in the children before and after the parental divorce. To these adverse experiences, boys adjust themselves less than girls.¹⁷ Samuelsson¹⁰ reported that parents with boys displayed more conflicts and mental health problems (all factors in SCL-90) than the ones with girls did; thus, boys from single parent families suffered more from mental stress than girls from single parent families did and tended to be more neurotic.

Interestingly, boys from single parent families exhibited lower scores in untruthfulness, i. e., the respondents of the boys to the questionnaires were more reliable. This could be attributed to their psychobehavioral characteristics of loneliness, neurosis, and impulsiveness, which induced them to express their emotions and behaviors frankly.

Horrible feelings and oppressed feelings were major characteristics of the girls from single parent families due to divorce and headed by mothers and were labeled as "anxious" personality. Zaslow²⁰ summarized that the boys and girls from single parent families were anxious, withdrawn, and dependent.

Wallerstein and Kelly⁶ reported that girls from single parent families worried about nonetheless pervasion, unwelcome burdens, emotionally ill parents and being abandoned. Abusive punishment in single parent families is twice as common as that in two parent families.¹⁵ This may partly explain the "anxious" personality in girls from single parent families. Additionally, in the Chinese culture, belittlement of females, rejection of girls, and the importance of male heirs were deeply rooted as social values,¹ which may contribute to the "anxious" personality of the girls.

Zaslow²⁶ summarized that the gender difference in the effects of parental divorce on children depends on the study method, age, ethnic group, postdivorce family form, period of divorce, etc. The present study clarified the difference in psychobehavioral characteristics between boys and girls aged 9-12 years in single parent families headed by mothers.

Among single parent families in China, the frequency of divorced families headed by mothers is much higher than that of any other pattern not only in a developing area such as Chengdu, but also in a developed area such as the city of Guangzhou.²¹ Thus, it is important to study the psychobehavioral disturbances in the children from single parent families due to divorce and headed by mothers.

The results of the present study suggest that an improved social environment is required for children of divorced families. Schoolteachers, health practitioners and custodial and non-custodial parents should pay particular attention to the "antisocial" personality of boys and the "anxious" personality of girls from single parent families. The results also suggest that further studies are required to determine the potential performance problems related to the "antisocial" personality of the boys and the "anxious" personality of the girls. It is also necessary to explore the mechanism and intervention strategies with much larger study samples and an extended age span on the psychobehavioral problems of children from divorced single parent families. In further studies, information on the children's experience in parental divorce and on their relationships with non-custodial parents should be considered.

However, because of the small sample size, a limitation of information on the exact period during which the subjects had been living in single parent families, their experience in parental divorce and their relationship with non-custodial parents, further research is required to confirm the findings observed in the present study

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