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Sociodemographic Correlates of Behavioral Problems Among Rural Chinese Schoolchildren

Hui Feng, Ph.D. [Lecturer],

School of Nursing, Central South University, Changsha, Hunan, China

Jianghong Liu, Ph.D. [Assistant Professor],

School of Nursing and School of Medicine, University of Pennsylvania

Ying Wang, M.Sc., R.N. [Lecturer], and

School of Nursing, Central South University, Changsha, Hunan, China

Guoping He, M.D. [Professor, Dean]

School of Nursing, Central South University, Changsha, Hunan, China.

Abstract

Objective—To investigate the problem behaviors of children from grades 4–6 and associated factors in the rural Hunan province of China.

Design and Sample—Randomized cluster sampling in 3 rural areas of the Hunan province was used. 435 subjects were randomly selected from grades 4–6.

Measures—A researcher-designed questionnaire was used to find influential demographic, parental, and socioeconomic factors. The prediction test of problem children (PPCT) was used to assess problem behaviors.

Results—The prevalence of the early child problem behaviors in our sample was 17.44%. Associated factors include gender, willingness to attend school, parents' expectations of the children's educational degree, parents working outside the home (left-behind children), and children's feeling of their parents' understanding of them.

Conclusions—The prevalence of children with problem behaviors was higher in rural areas in Hunan than in China as a whole. This may be partly explained by the fact that parents must often work in the cities and leave their children behind at home, increasing the chances that those children develop behavioral problems. This phenomenon also applies in other developing countries, making it a public health concern. Therefore, there is a need to prevent problem behaviors through collaboration among families, schools, and society.

Keywords

child; influential factors; problem behavior; rural area

Background

Children's behavior problems have always been a major research topic. Multiple studies have aimed to explore and determine the biological, psychosocial, and environmental risk factors associated with these behavior problems. It is an important research topic because behavior problems in children can extend later into life, potentially leading to juvenile delinquency and adult violence (Liu & Wuerker, 2005). As a result, a better understanding of the roots of childhood behavior problems is needed to allow nurses and other health care professionals to develop an effective prevention strategy (Liu, 2004a, 2004b).

Health care professionals have long classified behavior problems into two different types: externalizing and internalizing behavior. Externalizing behavior is exemplified by behavior such as aggression, hyper-activity, disruptiveness, and delinquency (Achenbach, 1991; Liu, 2004a, 2004b). As demonstrated by these examples, externalizing behavior is characterized by behavior that children exhibit on their external environments. On the other hand, behavior such as anxiety and depression is categorized as internalizing behavior. It reflects the effects on a child's internal psychological environment (Liu, 2004a, 2004b). Although different cultures define problem behaviors differently, it is usually defined as abnormal behavior, antisocial behavior, behavioral disorder, deviation behavior, lack of discipline, poor adaptation, and vandalism. In addition, problem behaviors also include generalized depression and pain, maladaptive behavior and emotions, learning problems, and poor interpersonal relationships. Both internalizing and externalizing behavior hinders the development of mental health well-being. In particular, children with conduct disorders have a greater chance of becoming delinquent adolescents and violent adults. In addition, children with internalizing behavior have a greater likelihood of becoming depressed and anxious later in life.

Investigators have suggested that many adult problem behaviors originate in childhood (Fischer, Rolf, Hasazi, & Cummings, 1984; Patterson, Reid, & Dishion, 1992). Approximately 9.3% of children ages 7–16 have clinical cases of oppositional defiant disorder and 6.8% of 1,641 children have conduct disorder based on parental reports with the child behavior checklist (Achenbach, Dumenci, & Rescorla, 2003). Data from many countries collected in different ways show similar rates in the stability of problems over multiple years (Bear, Webster-Stratton, Furlony, & Rhee, 2000; McGee, Partridge, Williams, & Silva, 1991; Richman, Stevenson, & Graham, 1982). These data indicate that there is a high probability (approximately 50%) that children manifesting problem behaviors at ages 3–4 will continue to have difficulties into adolescence. Early childhood behavior problems are of interest to clinicians and researchers because of their influence on concurrent psychological and social functioning (Campbell, Shaw, & Gilliom, 2000), their role in influencing later performance across peer and school contexts (Keane & Calkins, 2004; Rubin, Coplan, Fox, & Calkins, 1995), and their potential to constrain the development of a range of emotional, cognitive, and social skills (Calkins & Fox, 2002; Nigg & Huang-Pollock, 2003). The main concern is that problem behaviors negatively impact a child's ability to deal with interpersonal relationships, emotional instability, and learning difficulties.

The socioeconomic reform of the past three decades has significantly impacted traditional social and familial structures in China. The Chinese labor market has transitioned from agriculture to industry and from rural areas to urban areas. Studies have found that the rapid economic changes have contributed to familial divisions and destabilization of family structure (Chen, 2009; Kleinman & Kleinman, 1999). Much of the growing workforce, approximately 1.4 million, is choosing to work away from home in pursuit of better employment, living conditions, and educational opportunities for themselves and their children. This study examines the Hunan province in south-central China, the country's agricultural center, which remains relatively economically underdeveloped. Prior studies have found correlations between socioeconomic status and childhood behavior (Dodge, Pettit, & Bates, 1994; Gortmaker, Walker, Weitzman, & Sobol, 1990). However, political policy has created challenges for labor market reforms. This has led to difficulties in labor market development, such as poor public service to benefit workers from rural areas (health insurance, housing, and pensions). Pressured by a lack of government support, parents are forced to leave their children behind, where they are taken care of by relatives instead. Specifically, "left-behind children" are those with parent(s) or guardian(s) (including grandparents, relatives, or friends) who go to another place to work for at least 6 months. Previous research has found that for left-behind children, 36.1% have only one parent caring for them (Gao, 2010). In addition, 63.5% see their parents once every 6 years and 12.7% see their parents once annually (Gao, 2010). Consequently, this has affected children's emotional behavior development due to the absence of parent-child interaction (Fang, 2002).

Other factors have also been associated with childhood behavioral problems. For example, gender has been associated with problem behaviors; in previous studies, boys have exhibited these types of behaviors more than girls (Jessor et al., 2003; Liu et al., 2000). In addition, the children's willingness to attend school and attachment to school have been found to be negatively correlated with behavior problems (Griner Hill & Werner, 2006; Murray & Greenberg, 2001). Parental factors have also been studied. Children with parents who had a higher education level were more likely to have better academic achievement (Hill et al., 2004), which is associated with decreased behavior problems (McEvoy & Welker, 2000). Other studies found a direct association between lower parental expectations (defined by ultimate degree expected) and behavioral problems (Xu, 2000; Yuan, 2007). Finally, weak parent-child relationships, such as those where the children believe the parents do not understand them, have been associated with childhood behavior problems (Mason, Cauce, Gonzales, & Hiraga, 1994; Treutler & Epkins, 2003).

Records from the Hunan province indicated that 886 adolescents were imprisoned from January 2003 to December 2004. Seventy percent of criminal cases were caused by juveniles, of which 88.4% were aged 14–18 (Chen & Li, 2006). In contrast, in all of China, 59.2% of criminal cases were caused by juveniles aged 14–18 (He & Sun, 2009). These data indicate the need for a better understanding of the causes, which are particularly affected by the rapid economic growth in China of childhood problem behaviors in rural areas. Since childhood behavioral problems can lead to problem behaviors in adults, more information is needed for developing effective prevention strategies. This study aims to fill these information gaps in order to increase knowledge about the factors associated with problem behaviors in Chinese children. Therefore, the purpose of this study is to investigate the early

problem behaviors of children in grades 4–6 as well as examine the potential influential factors related to these behaviors in the rural Hunan province of China.

Research question

The research question that is addressed is: What are the demographic, parental, and socioeconomic factors associated with problem behaviors in children living in the rural Hunan province in China?

Methods

Design and sample

This study was conducted in May 2008 in three rural counties of Hunan province: Yi Yang, Chen Zhou, and Wang Chen. We selected these counties for the following reasons. First, the socioeconomic status among them is very similar, based on government reports of the GDP in each county. Second, based on the “Report of problem of Left-behind rural children in Hunan” from the Hunan provincial communist youth league (2006), all three counties reflect areas in which agricultural workers make up the majority of the population. Of the agricultural workers, one third have moved to the city for employment, leaving their children behind.

Participants were recruited into the study only after full consent was obtained from the schools, guardians, and children. The criteria for potential participants included the following: enrollment in grades 4–6 and the absence of serious psychological disorders. To exclude children with serious psychological disorders, a mental health monitoring and reporting database in each community was used. This database is regulated by Mental Health Supervision Police in Community (Weifushefa, 2006) and Guidelines of Mental Health Management in Community of Hunan Province (Huweizifa, 2006), which is used for statistical and analytic purposes and is compiled with reports from psychologists from each community.

With respect to random sampling, we used the cluster sampling method. We first randomly recruited six rural elementary schools from Yiyang city, Chenzhou city, and Wang Cheng county in Changsha. The schools were NanJinXiang elementary school, TaoJiangXian elementary school, FengShu elementary school, HuangNi center elementary school, PinAn elementary school, and MeiHu center elementary school. In each school, there are approximately one to three classes in each grade and 30–40 children in each class, for a total of about 200–800 students. We recruited one class each in the fourth, fifth, and sixth grades from the six elementary schools. In total, we recruited six classes from grade 4 ($N = 190$, mean age = 10), six classes from grade 5 ($N = 209$, mean age = 11), and three classes from the grade 6 ($N = 54$, mean age = 12). The sixth-grade sample is small because two schools did not allow sixth graders to participate because of the heavy load of schoolwork for the students preparing to enter junior high school. In our study, 25.39% of children were being taken care of by one of their parents, 26.49% were taken care of by their grandparents, 2.87% were taken care of by their relatives, and 5.74% were taken care of by themselves.

Measures

Sociodemographic information—This researcher-designed questionnaire was used to record information on participants' age and gender, the academic expectation of the parents for the child (high school degree, technical degree, college degree), household economic status (wealthy, ordinary, poor), the amount of the child's pocket money, whether parents were living and working outside the home, as well as parents' marital status (married or divorced), occupation (unemployed, farmer, factory worker, administrator, professional, self-employed, or other), and educational background (primary, junior, high school, vocational school, or college). We maintained control conditions during the process of investigation: first, we recruited eight graduate students who cooperated with four other members in the project. They received in-depth training in order to understand the goal and the purpose of the study. Moreover, they were required to know every detail of the questionnaire and to consistently implement it. Second, this questionnaire was anonymously completed by the children. The investigator provided answers only regarding the questions from the questionnaire. The answers of the questionnaire were examined right after completion, and then immediately discarded. Third, all questionnaires were thoroughly examined and any invalid responses were disregarded. In particular, many parents believed that studying is a more useful way to spend time rather than engage in other leisure activities, since this belief is rooted in Confucian thought. Parents from rural areas specifically preferred their children to pursue higher education in order to attain a better, more successful adult life. In this study, parental expectations for their children were mainly focused on academic achievement and educational pursuits. The academic achievement was determined by averaging performance across the subjects of Chinese, mathematics, and English, which were classified as good, fair, or poor. If the average of these subjects was above 90, then it was considered "good," 70–89 was considered "fair," and below 70 was considered "poor." Economic status was determined by the following criteria. "Wealthy" was classified by the presence of private housing and electronic appliances. "Ordinary" was determined by the presence of private housing and limited electronic appliances. "Poor" was indicated by not owning private housing with few electronic appliances. "Working outside the home" referred to parents who leave their children and hometown to seek employment opportunities elsewhere. We refer to these children as "left-behind children."

Prediction test of problem children (PPCT)—The PPCT was developed by Changdaozenfu (Zhou & Zhen, 1991) from Japan and is suitable for children ages 3–17. Since China and Japan have many similarities in behavior, moral standards, customs, and cultures, only slight modifications were made to the PPCT for Chinese children by Zhou and Zhen. This modified PPCT was used to assess students' overall problem behaviors. The PPCT was completed by the children and has 80 items, for which every item has three response options: yes, no, and not sure. Overall, the PPCT consists of one L scale and six content scales.

More specifically, the L scale, also known as the "lie scale" or the validity scale, is measured by a questionnaire. It is composed of 20 items. The perfect score of the questionnaire is 20 points, divided into three subscales: A (0–2), B (3–6), and C (7–20). An A or B indicates that the testing results from each content scale are reliable. Receiving a C

means they are sensitive to action constraints, meaning they would not truly answer questions. However, this is not considered “nonsense.” Hypothetically, if the results from each content scale were not reliable, other methods must be used to test the personality of the subjects.

The six content scales make up three separate scales. The first one is interpersonal relationship maladjustment (I), which includes two subscales: rebellion tendency and oppressive feeling. The second one is emotional instability (II), which includes two subscales: low tolerance and loneliness-not accepted by others. The third one is learning difficulties (III), which also includes two subscales: lack of learning enthusiasm and lack of desire for achievement. Each subscale is composed of 10 items. The original score of each content scale is calculated into a C score based on norms. The C score from the subscales of I (interpersonal relationship), II (emotional stability), and III (learning difficulties) is the average of two content scales involved. The C score of the whole PPCT is the average of content scales I, II, and III. Here, it is important to note that even though the two components of the second factor on the PPCT seem not to be highly related, they still play important roles in contributing to emotional instability. The dividing rule of these two C scores is the same. A flow diagram of the PPCT is displayed in Fig. 1.

The PPCT score ranges from 0 to 10, with three categories. Grade A ranges from 0 to 5, indicating no behavioral problems. Grade B ranges from 6 to 7, indicating slight behavioral problems. Grade C ranges from 8 to 10, indicating severe behavioral problems. The higher the score, the more severe the behavioral problems exhibited in the children. The half-reliability of this testing content scale is 0.88–0.910 and the test-retest reliability is 0.78–0.85. It has good construct validity, predictive validity, and concurrent validity (Zhou & Zhen, 1991).

To determine whether the children feel as if their parents do not understand them, an additional question was included at the end of the PPCT. It read, “From choices 1–4, choose the idea that exactly fits your thoughts (you may choose as many you would like).” The choices were: (1) I think my father doesn’t understand me completely, (2) I think my mother doesn’t understand me completely, (3) I think my teacher doesn’t understand me completely, and (4) I think my classmate doesn’t understand me completely.

The research was approved by the University Institutional Research Board of Central South University and the participating schools. Oral and written informed consents were obtained from students and their guardians after providing full information regarding the purpose of the research and the procedures to ensure confidentiality. The investigator determined whether the student met the eligibility criteria for the study. No identifying information was included in the questionnaire or scale. Surveys were designed to require limited reading and writing.

Analytic strategy

The data were analyzed using the statistical package for the social sciences (SPSS, version 13.0). Mean and standard deviation were used to describe the participants’ demographic characteristics. Descriptive analysis was used to determine the prevalence rate of child

problem behaviors. Logistic regression analysis was used to determine which factors were influential with respect to problem behaviors.

Results

After excluding the questionnaires where L scale scores were >6 , there were 453 usable questionnaires; the validity rate was 92.45%. There were 217 male students and 236 female students. The average age was 10.72 ± 1.07 . The characteristics of the recruited students are presented in Table 1.

Prevalence of the early child problem behaviors

The results of this study show that 92 children (20.31%) had early problem behaviors. A total of eight students (1.77%) had serious problem behaviors (overall C score >8 points). With further analysis, it was found that 61 students (13.46%) had serious problems in interpersonal relationships, 12 students (2.65%) had serious problems related to emotional stability, and 19 students (4.19%) had serious problems in learning adaptability (see Table 2 for details). The most common problem among children with mild and severe problem behaviors was “not adept in interpersonal relationships” (see Tables 2 and 3).

Factors associated with problem behaviors in children

Using chi-square analysis, some individual characteristics of children (age, grade, academic performance) and variables included in the family profile (the caregivers, family economic status, presence of siblings, and parents' occupation, education levels, and marital status) were not associated with problem behaviors (Table 4). As indicated by Table 4, gender, parents' expectation of their children's ultimate degree, parents having worked outside the home, children's health, children's willingness to attend school, and whether the father knows that the children have behavior problems were associated with children's behavior problems. To be more specific, in the single factor analysis, girls displayed more behavioral problems than boys ($\chi^2 = 18.099, p = .000$). In addition, the children's willingness of not to attend school has been found to be negatively correlated with behavior problems ($\chi^2 = 24.364, p = .000$). Also, parental factors have been carried out. First, parents' expectation of their children's ultimate degree had a huge influence on early children behavior problems; however, children with parents who had higher expectations were more likely associated with decreased behavior problems ($\chi^2 = 25.486, p = .000$). Second, children with parents having worked outside the who believed that the father did not understand him/ home were found to be negatively correlated with behavior problems ($\chi^2 = 8.212, p = .004$). Third, a child ($\chi^2 = 16.101, p = .000$). Finally, children's response of good health was also highly associated with early children behavior problems ($\chi^2 = 54.648, p = .031$).

With the presence of behavior problems (PPCT scale score of 6 points or more, meaning a B or a C grade) as the dependent variable, the significance of age, grade, economic status, parents' occupation, and parents' educational background was analyzed using standard regression analysis ($\alpha_a = 0.10, \alpha_b = 0.15$). The logistic regression results are shown in Table 5.

According to logistic regression of this study, the influential factors are arranged in the degree of importance shown as follows: the willingness to go to school (4.383), gender (1.698), the parents' expectations of children's degree (0.559), parents ever working outside the home (0.427), and the children feeling as if their father does not understand them (0.391). Through the chi-square test, the results of multiple linear regressions were statistically significant. In short, the significant results from the logistic regression indicate that factors associated with childhood behavior problems include gender, willingness to go to school, the parents' expectations of children's degree, parents ever working outside the home (left-behind children), and the children feeling as if their parents do not understand them.

Discussion

Our study shows that in rural areas of south-central China, where agriculture predominates, the prevalence of problem behaviors in children was 17.44%, higher than the national average both in China (12.43%) and in the United States (11.5%) (Sawyer, Whaites, & Rey, 2002; Xin, 1992). Based on three dimensions of behavior problems that were reflected in the PPCT, interpersonal relationship maladjustment, emotional instability, and learning difficulties, we found that 13.46% of children showed serious problems in interpersonal relationships, 2.65% had serious problems related to emotional stability, and 4.19% had serious problems in learning adaptability. The final logistic regression indicated that the following five factors were associated with problem behaviors: the child's gender, the parent's expectation of the level of education the child will attain, the parents having left the home in search of other employment opportunities (left-behind children), the children's willingness to attend school, and the children feeling as if their parents do not understand them.

Our study shows that parents' expectation of their children's educational attainment is negatively correlated with problem behaviors in children. Parents' aspirations for their children's academic success have been associated with children's self-efficacy beliefs, which decrease the likelihood of the child engaging in problem behaviors that can undermine academic pursuits (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Parents who value their children's education are more likely to be directly involved in their children's lives. As research shows, more parent-child interaction is linked with fewer problem behaviors (Aragona & Eyberg, 1981). Even if the parents are not directly involved in the child's home life due to employment, we speculate that parents with high expectations for children are more likely to communicate with them from a distance. To be more specific, among variables that included individual characteristics of children and the family profile, we have found that problem behaviors of children were different between genders. Girls showed more problem behaviors than boys. Also, if children were willing to attend school with parents' higher expectation of their ultimate degree, followed by understanding of their fathers, the school-children's behavior problems will decrease. However, if children were reluctant to attend to school with parents' lower expectation of their ultimate degree, followed by not being understood by their fathers, the schoolchildren behavior problems will increase.

Parents' working outside the home was associated with children's behavior problems. In these three rural areas, the economic status is relatively low; hence, many parents choose to live and work outside the home to earn money. The children remain home and are cared for by their grandparents or relatives. We speculated that most of these children lack bonding with their parents; hence, they may become frustrated, anxious, overly sensitive, self-abasing, and cold. In addition, some of them may exhibit loneliness, withdrawal, and somatic complaints. These psychological problems can influence their personality development and can result in a long-term problem behavior (Fang, 2002). Because these problems may result from the lack of relationships with their parents, their ability to form healthy relationships with peers and others may be diminished. Other studies examining left-behind children have found poor interpersonal relations (Chen & Xie, 2007; Zhou Sun, Liu, & Zhou, 2005). This inability to form proper interpersonal relationships may result in the loneliness and anxiety that other studies found in left-behind children (Wang et al., 2006; Zhou et al., 2005).

Our survey also indicated that the willingness to attend school is associated with early childhood problem behaviors. This finding is consistent with the literature that shows that an attachment to school and an increased motivation to achieve are associated with decreased behavior problems. Possible reasons involve an increased concept of self-efficacy (Hudley, Graham, & Taylor, 2007) and positive emotional adjustment (Griner Hill & Werner, 2006). If a child is willing to go to school, he or she will be more actively focused on academic success. Parents play an important role in influencing their children's value of education, and the availability of parents to help their children with their studies is also important to their success in school. If parents are away from home, the left-behind children may not be as motivated to attend school. In addition, the grandparents, who serve as the guardians of the left-behind children and are often uneducated, are unlikely to be actively involved in children's academic achievement since their primary role is caring for the children.

Parental interaction and communication with children are important impact factors for a child's behavioral development (Aunola & Nurmi, 2005; Crockenberg & Leerkes, 2000; Hastings & Taunt, 2002). This study found an association between a lack of parental understanding and problem behaviors. The less understanding the parents were, the higher the incidence of psychological disorders. This phenomenon is also related to parents living away from home for work and providing less care and communication with children. To reduce the development of childhood problem behaviors, parents should be more attentive to children's thoughts and feelings, recognize their psychological needs, and communicate with them more often. If parents are away from the home for employment, they could improve their communication with their children through telephone calls or more frequent trips home.

Logistic regression analysis indicated that the incidence of children problem behaviors was different between genders. Girls showed more problem behaviors in interpersonal relationships than boys did, which contrasts the results of other studies. This may be because traditionally, in rural areas, boys are considered superior to girls. When children are left behind, parents may provide more resources for boys rather than girls. Secondly, when children are left behind, the grandparents often take over as the primary caretakers and may

be even more likely to be genderbiased in terms of the care (more traditional). Consequently, girls may feel a lack of parental bonding and modeling.

Limitations and implications

There are several limitations in this study that need to be acknowledged. First, we do not have specific data on the left-behind children. For example, it is unknown whether the parents had close communication with children even while away from the home, whether the children faced other instabilities, or whether the children had access to other support mechanisms. Therefore, we are unable to determine whether parents had an indirect involvement in their children's lives. Since problem behaviors among children are the result of multiple influencing factors in addition to the factors involved in this study, some factors such as children's personality traits, bio-genetic factors, and family environment may also affect the childhood problem behaviors. For example, the characteristics of children's current caregivers and their ways of nurturing are also influential. In addition, some variables studied in this paper may be factors resulting from other characteristics. For example, parents may have low expectations for the ultimate academic accomplishment of a child because of the child's past academic performance or current behavior problems. Therefore, future research is needed to study these variables.

In terms of implications, in the rural areas of China, parents seeking outside sources of employment is a social trend. To decrease the consequences of behavior problems in left-behind children, parents should be aware of the importance of their involvement in their children's psychological development. For example, parents can set up a means of communication with their children (telephone calls, text messaging, instant messaging, letters, etc.) while they are physically away from home. These methods provide opportunities for parent-child interaction, in which parents can motivate their children about academic achievement, identify early signs of behavior problems, and understand how their children feel. Furthermore, families, schools, and society must work together and take comprehensive measures, such as establishing psychological consultation clinics in rural areas, conducting mental health screening to detect childhood behavioral problems early, developing mental health educational programs for children, teachers, and parents, and providing psychological treatment for those left-behind children with behavior problems.

In conclusion, the prevalence of children with problem behaviors was higher in the rural areas of Hunan, China, than in China as a whole. This may be partly due to the phenomenon of left-behind children, whose parents work away from home. Since childhood is a key period of psychological development, children are susceptible to external environmental factors that may result in psychological disorders and problem behaviors. There is an urgent need to improve problem behaviors through collaboration among families, schools, and society, particularly with efforts targeted to rural and agricultural areas, where parents may seek urban employment opportunities.

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Figure 1.

A Flow Diagram of the Prediction Test of Problem Children (PPCT) and Its Scales

TABLE 1
Characteristics of the Sample (N = 453)

Characteristics	Group	N	%
Gender	Boy	217	47.90
	Girl	236	52.10
School	NanJinXiang elementary school	80	17.66
	TaoJiangXian elementary school	53	11.70
	FengShu elementary school	64	14.13
	HuangNi center elementary school	85	18.76
	PingAn elementary school	66	14.57
	MeiHu center elementary school	105	23.18
Grade	Grade 4	190	41.94
	Grade 5	209	46.14
	Grade 6	54	11.92
Father's position	Unemployed	12	2.65
	Farmer	150	33.10
	Factory worker	167	36.87
	Administrator	23	5.08
	Professional	17	3.75
	Self-employed	34	7.51
Mother's position	Other	50	11.04
	Unemployed	68	15.01
	Farmer	194	42.83
	Worker	76	16.78
	Administrator	12	2.65
	Professional	20	4.42
Father's degree of education	Self-employed	38	8.39
	Other	45	9.93
	Illiteracy	14	3.09
	Primary	88	19.43
	Junior	257	56.73
	High school or vocational school	74	16.34
Mother's degree of education	College diploma or above	22	4.86
	Illiteracy	19	4.19
	Primary	150	33.11
	Junior	215	47.46
	High school or vocational school	55	12.14
	College diploma or above	15	3.31
Parents divorced	Yes	19	4.19
	No	399	88.08
	Do not know	35	7.73
Family's economic status	Upper class	21	4.64

Characteristics	Group	<i>N</i>	%
Academic Achievement	Middle class	348	76.82
	Lower class	51	11.26
	Do not know	33	7.28
	Above-average	134	29.58
	Average	243	53.64
Primary caregiver	Poor	76	16.78
	Both parents	179	39.51
	One parent	115	25.39
	Grandparents	120	26.49
	Other relatives	13	2.87
	Self	26	5.74

TABLE 2
Condition of Early Child Problem Behaviors in the Subscale (N = 453)

Variables	Mild problem <i>n</i> (%)	Serious problem <i>n</i> (%)
Interpersonal relationship	117 (25.83)	61 (13.46)
Emotional instability	110 (24.28)	12 (2.65)
Learning difficulties	94 (20.75)	19 (4.19)
Overall scale	104 (20.96)	8 (1.77)

TABLE 3
Score of each Subscale of the Prediction Test of c
Problem Children (N = 453)

Dimension	Number of items	Mean	Standard deviation	Rank
Interpersonal relationship	20	5.61	1.706	1
Emotional instability	20	5.00	1.512	3
Learning difficulties	20	5.06	1.394	2

TABLE 4
Comparison of the Variables Associated with Behavior Problems

Variable	Behavior problems	Number of behavior problems	χ^2	<i>p</i>
Gender				
Boy	34	183	18.099	** .000
Girl	45	191		
Parents ever working outside home (left-behind children)				
Yes	62	230	8.212	.004**
No	17	144		
Parents' expectation of children's ultimate education degree				
Middle school	5	0	25.486	.000**
High school/vocational school	5	22		
College/university	58	313		
Do not know	11	33		
Willingness to go to school				
Yes	69	367	24.364	.000**
No	10	3		
Children healthy or not				
Yes	50	281	4.648	.031**
No	29	93		
Whether father knows children have behavior problems				
Yes	40	103	16.101	.000**
No	39	271		

* $p < .05$,

** $p < .01$.

TABLE 5
Logistic Regression Analysis of Child's Behavior Problems

Variables	<i>B</i>	<i>SE</i>	Wald	Significance	Exp (<i>B</i>)	95% CI for Exp (<i>B</i>)	
						Lower	Upper
Gender	0.530	.281	3.556	.054	1.698	0.767	1.704
Child's willingness to go to school	1.478	.371	15.897	.000	4.383	1.302	10.511
Parents' expectation of child's ultimate education degree	− 0.581	.288	4.073	.044	0.559	0.516	1.931
Parents living and working outside the home (left-behind children)	− 0.850	.321	7.019	.008	0.427	0.357	1.049
Child feels parents do not understand them	− 0.939	.273	11.828	.001	0.391	0.313	0.724