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A Social Intervention Approach to Rehabilitate the Health Psychology of Left-behind Children with Psychological Problems in Healthcare Settings

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ABSTRACT

Background: Left-behind children are more inclined to generate psychological problems relative to non-left-behind children, thus how to rehabilitate their health psychology and promote the psychological health development of this special disadvantaged group in healthcare settings should be paid more attention to. **Objective:** This paper attempts to present a social intervention approach and explore its impact on the rehabilitation of rural left-behind children's psychological problems in healthcare settings. **Methods:** This study firstly designed a social intervention program based on the health psychology theory and the generation causes of left-behind children's psychological problems, and then three groups were applied to test the effectiveness of the program with comparison analysis. **Results:** Compared with the control left-behind children (group 2), the left-behind children in the experimental group 1 had positive changes in learning anxiety, physical symptoms, anxiety about people, loneliness tendency, self-blame tendency, allergy tendency, terror tendency and impulse tendency. And their mental health can be rehabilitated to the level of non-left-behind children in group 3. **Conclusion:** This study revealed positive effects of specially designed social intervention program on the rehabilitation of left-behind children's psychological problems in healthcare settings. The results have both theoretical and practical implications.

KEYWORDS

Health psychology; left-behind children; rehabilitation; healthcare settings; experiment

1 Introduction

Mental health refers to the psychological aspects and activities in a good or normal state and it plays a crucial role in promoting the growth and development of individuals [1–3]. Left-behind children refer to the children who are raised and surprised by their single parent, or grandparents and other relations, or even neighbours because their both parents or single parent work far away their hometown [4]. Since the early 1980s, quantities of rural surplus labours chose to find a job in cities or in the eastern part of China with the implication of the country's reform and opening-up policy [5,6]. However, it was difficult for these migrant labours to solve many practical problems, especially for the education issue of their children in their work place due to the restriction of dual social structure and their own economic conditions [7].



Given these circumstances, they had to leave their children in the rural area and entrust them to relations and neighbours, thus leading to the long-term separation between parents and children [8]. According to the China's national statistics bureau, there were approximately 172.66 million rural migrant workers at the end of 2018 and about 16 million left-behind children were generated in rural areas. Amongst these left-behind children, about 11 million were in primary school and 5 million were in middle school.

According to self-determination theory, social individuals have the basic need to maintain a sense of intimacy and connection with important others [9]. The factors that promote this basic need are conducive to personal development, while the situational factors that interfere with or hinder its satisfaction are not conducive to personal development. After their parents went out to work, the left behind children could not get the care of their parents for a long time, and they lacked emotional communication with their parents, which were more inclined to lead to the long-term dissatisfaction of their basic needs and seriously affected their healthy growth, including the psychological health development [8,10]. To be sure, there are positive aspects for parents to work outside: it can increase the family income, increase the investment in children's education, reduce the drop-out rate, and reduce the time for children to participate in agricultural labour [11,12]. However, most scholars believe that compared with non-left-behind children, left-behind children are faced with the triple lack of family affection, family education and guardianship [5]. The disadvantaged environment makes left-behind children in a weak position in many aspects, which will have a negative impact on their psychological health and personal growth. Due to the lack of emotional communication with parents, left-behind children are prone to have a lot of negative emotions and bad problems. Their individual and group discrimination consciousness is also significantly higher than that of non-left-behind children, which will also bring adverse effects on their psychology growth [6]. Researchers believe that in terms of mental health, left-behind children are more likely to have psychological problems than non-left-behind children, and score higher in somatization and interpersonal sensitivity, such as Sun et al. [10]. In terms of personality, left-behind children are more introverted, lonely, self-abased and restrained, young but mature, depressed, impulsive, nervous, anxious, and egocentric relative to non-left-behind children.

Therefore, the lack of parental function has significant negative impacts on the psychological health and growth of rural left-behind children. How to promote the psychological health development of this special disadvantaged group is an essential theoretical problem in academical circle and also an important practical issue needing to deal with by the government. This paper attempts to explore the impact of social intervention on the rehabilitation of rural left-behind children's psychological problems and specifically focuses on the following two questions: how to design a reasonable and practical social intervention program for rural left-behind children? And does the designed social intervention program have positive influence on the rehabilitation of children's psychological problems?

2 Methodology and Materials

2.1 Experimental Design

All kinds of practical psychological problems of left behind children come from their inner needs for family affection [13]. If the need for family affection cannot be satisfied for various reasons, psychological problems will arise [14]. The main reasons are as follows: firstly, the lack of parental affection. What left behind children lack most is parental affection. Although they are accompanied by grandparents, they are more eager for their parents' care, and their parents are far away from themselves, which makes them unable to get their parents' care. Left behind children are extremely eager for family affection, and their feelings have been missing for a long time, which will have a serious impact on their psychology [11]. For example, most left behind children are selfish, impolite, and unsympathetic. Parents cannot give effective guidance to the left behind children's learning, which makes the children's learning performance poor and lead to truancy and weariness. Only close emotional communication can cultivate children's good emotions

and promote their mental health. Only under the protection of the family can children learn to love. If they lack the care of their parents, left behind children will have psychological barriers.

Secondly, the way of school education is not perfect. For a long time, schools only use scores to measure the quality of a student. Of course, this responsibility cannot be solely attributed to the school, because it is caused by the exam-oriented education system. Dominated by the exam-oriented education system, teacher pays more attention to the students with good grades, while they are indifferent to the students with poor grades. Many of those with poor academic performance are left behind children [10]. What's more, when left behind children make mistakes, the teachers take ironic education methods, which leads to children's resentment against the teacher and deliberately against the teacher. Children cannot get their parents' care at home and teachers' attention at school. Therefore, they have strong psychological pressure and mental health problems [6]. Thirdly, bad social environment has negative influence on them. Society is a complicated and colourful world, and social environment plays an important role in children's growth. Nowadays, some villages and towns, especially the larger ones, have set up some Internet cafes. In order to make money, Internet cafes even come up with some ways to lure students. For example, Internet cafes have special people to do homework for children, in order to attract more children to the Internet cafes. Some left behind children's families are not rich, and they cannot resist the temptation to steal money to go online, which has a serious impact on the psychology of left behind children.

Based on the above analysis, a social intervention program was designed to deal with the psychological problems of rural left-behind children. The research of social support originated in the 1970s, and was first applied in the field of mental illness and medical rehabilitation [15,16]. Scholars have carried out a large number of empirical studies by using quantitative research methods, and the research has proved that social support is beneficial to the rehabilitation of patients with mental illness and mental illness [17,18]. Later, the research of social support has been widely carried out in more disciplines such as psychology, pedagogy, sociology and so on [19,20]. From the sociological point of view, the research of social support aims to reveal the characteristics of social support of social groups and its impact on individual development [21,22]. Domestic sociologists began to carry out research on social support in the latter half of the 1980s. From the macro perspective of social transformation, scholars mainly focus on the social support of vulnerable groups [23,24]. These studies focus on the elderly, women, college students, teenagers, and other groups, such as Mansfield et al. [17], Segrott et al. [25], and Tape et al. [26]. Among them, the research on social support of the elderly, college students and migrant workers is relatively mature [27]. In contrast, the research on social support of children is still relatively weak. In terms of social support, the left behind children have less social support, especially the subjective support and the utilization of support.

The objects of intervention experiment were students from one primary school (De-Shan primary school) and one middle school (Long-Tai middle school), and both of them are located in Long-Tai Town. Specifically, Long-Tai is a remote town in Sichuan Province and has been listed on the national poor areas for a long time. And what's more, there are many migrant labours and corresponding left-behind children in this town. Students were divided into three different groups: group 1 consisted of thirty-three left-behind children who would be intervened through some methods, group 2 included thirty-three left-behind children who would not be intervened, and group 3 included thirty-three non-left-behind children.

Specifically, all left-behind children in group 1 were intervened by the following approaches: firstly, a special home was established for these left-behind children and thus these left-behind children could visit the special home after class and at weekends. Secondly, some local people with love and high cultural quality were recruited to take care of these children's lives and are also responsible for their learning guidance and moral education. Thirdly, the teachers and supervisors of left-behind children were trained for better understanding the psychological traits and countermeasures of left-behind children. Fourthly, a

psychologist was responsible for tracking the psychological state of left-behind children and giving timely advices. Fifthly, the special home was equipped with computers and landlines and these left-behind children can communicate with their parents through the internet. And parents were asked to communicate with their children at least twice a week.

2.2 Data Collection

The intervention was from April 15 2020 to October 14 2020, and the data were collected before and after the intervention for all three groups. The mental health test (MHT) was applied in this study, which consists of 100 questions relating to learning anxiety, physical symptoms, anxiety about people, loneliness tendency, self-blame tendency, allergy tendency, terror tendency and impulse tendency. Amongst, learning anxiety and physical symptoms have fifteen questions and the remaining six factors have ten questions. Another ten questions were utilized for evaluating whether the respondent's score was credible and whether the test was effective or not.

3 Results and Discussion

Table 1 demonstrates the profile of children in three groups, including gender, age, parents at home and years of lacking parental care. The following results can be observed: (1) all three groups have 32 members and the age changes between 7-year-old and 14-year-old. (2) Most left-behind children who were intervened in the group 1 were female (19), accounting for about 60.37% of the total members. (3) Children with single parent at home occupies a more proportion in both group 1 (56.25%) and group 2 (53.12%). (4) Children lacking parental affection between 2 and 5 years ranks the first (40.63%) relating to the time of lacking parental care in group 1, followed by 5 to 7 years (21.88%) and more than 10 years (21.88%).

Table 1: Profile of members in three different groups

Variables	Values	Group 1 (%)	Group 2 (%)	Group 3 (%)
Gender	Male	13 (40.63)	15 (46.88)	16 (50.00)
	Female	19 (60.37)	17 (53.12)	16 (50.00)
Age (years)	7–8	6 (18.75)	7 (21.88)	8 (25.00)
	9–10	10 (31.25)	10 (31.25)	9 (28.13)
	11–12	9(28.13)	8 (25.00)	8 (25.00)
	13–14	7 (21.88)	7 (21.88)	7 (21.88)
Parents at home	Single parent at home	18 (56.25)	17 (53.12)	0
	Both parents outside	14 (43.75)	15 (46.88)	0
Time of lacking parental affection	One or two years	5 (15.63)	6 (18.75)	0
	2–5 years	13 (40.63)	14 (43.75)	0
	5–10 years	7 (21.88)	7 (21.88)	0
	More than 10 years	7 (21.88)	5 (15.63)	0

Table 2 indicates the changes in psychological health factors before and after social intervention in group 1 and corresponding scores in group 2. According to the mean value and standard deviation of all eight factors, the following results can be summarized: (1) Children in both group 1 and group 2 were inclined to have a high learning anxiety (more than 8) before social intervention. But this phenomenon changed after social intervention: the mean value of left-behind children in group 1 in learning anxiety reduced to 7.32, which was lower than 8 and was also lower than that figure in group 2 (8.17). (2) For

group 1, the scores in all other seven factors have a certain degree of decline. Taking physical symptoms as an example, the figure before social intervention was 6.11, and it changed to 4.37 after social intervention. And the figure after intervention in groups was much lower than that figure in group 2 (6.21). Therefore, it seems that social intervention has positive impact on the rehabilitation of rural left-behind children's psychological problems.

Table 2: Changes in psychological health factors before and after social intervention

Psychological health factors	Pre-intervention: Mean (SD)		Post-intervention: Mean (SD)	
	Group 1	Group 2	Group 1	Group 2
Learning anxiety (LA)	8.15 (2.13)	8.21 (2.15)	7.32 (2.23)	8.17 (2.32)
Physical symptoms (PS)	6.11 (2.34)	6.09 (2.43)	4.37 (2.52)	6.21 (2.53)
Anxiety about people (AAP)	4.08 (2.53)	4.15 (2.29)	2.54 (2.12)	4.15 (2.24)
Loneliness tendency (LT)	5.83 (2.14)	5.57 (2.13)	3.72 (2.08)	5.63 (2.32)
Self-blame tendency (SBT)	6.28 (2.54)	6.12 (2.29)	4.11 (2.15)	6.09 (2.24)
Allergy tendency (AT)	6.11 (2.24)	6.16 (2.71)	4.75 (2.19)	6.25 (2.13)
Terror tendency (TT)	4.02 (2.82)	4.33 (2.23)	3.07 (2.24)	4.41 (2.42)
Impulse tendency (IT)	3.69 (2.31)	3.72 (2.15)	2.48 (2.13)	3.65 (2.12)

To explore whether significant difference exists between these changes in group 1 before and after social intervention, the Wilcoxon signed-rank test, suggested by, Taheri et al. [28], was further conducted and the results were integrated in Table 3. It is easily observed that the absolute values of all Z statistics were higher than 4 and the corresponding P values were 0, which meant that the disparity between pre-intervention and post-intervention was obvious and significant decrease in all eight factors were supported at the significant level of 0.001.

Table 3: Wilcoxon signed-rank test

Factors	Pre- and post-social intervention	
	Z	P
Learning anxiety	-4.382	0
Physical symptoms	-4.913	0
Anxiety about people	-4.782	0
Loneliness tendency	-4.652	0
Self-blame tendency	-4.918	0
Allergy tendency	-4.563	0
Terror tendency	-4.525	0
Impulse tendency	-4.842	0

Further, to explore the influencing effects of social intervention on rural left-behind children's psychology development, an analysis of covariance was conducted. Specifically, the figures of all eight psychological health factors after social intervention in both group 1 and group 2 were considered as the dependent variables, the figures of all eight factors before social intervention were regarded as covariates, and social intervention was considered as the independent factor. The estimated F values were integrated

into Table 4 and the results demonstrates that: (1) The disparity between group 1 and group 2 in physical symptoms and loneliness tendency were supported at the significant level of 0.001, which meant that social intervention had significant influence on left-behind children in these two psychological factors. (2) The difference between group 1 and group 2 in self-blame tendency, terror tendency and impulse tendency were supported at 0.01 significant level, which meant that social intervention had extent impact on left-behind children in these three psychological factors. (3) The F value of learning anxiety was 0.54 and the corresponding P value was higher than 0.05, which meant that the disparity between group 1 and group 2 in leaning anxiety was not significant.

Table 4: Analysis of covariance (*F* value)

Independent variable	Dependent variable							
	LA	PS	AAP	LT	SBT	AT	TT	IT
Social intervention	0.54	15.39***	4.89*	16.29***	10.28**	5.84*	11.88**	10.13**

To explore the positive effects of social intervention on rural left-behind children, the figures of all eight psychological factors after intervention were utilized to compare with that figures of non-left-behind children in group 3. Table 5 indicates the independent sample T test results between group 1 and group 3. It is easily to observe that the disparity between group 1 and group 3 in all eight factors were not significant (the P values were above 0.05), which meant that social intervention could promote the rehabilitation of rural left-behind children's psychological problems to the level of non-left-behind children.

Table 5: Independent sample *T* test between group 1 and group 3

Variables	Group 1	Group 3	<i>t</i>	<i>p</i>
Learning anxiety	7.32 (2.23)	7.55 (2.72)	0.482	0.692
Physical symptoms	4.37 (2.52)	4.48 (2.13)	0.529	0.683
Anxiety about people	2.54 (2.12)	3.02 (2.44)	1.122	0.208
Loneliness tendency	3.72 (2.08)	3.62 (2.43)	0.446	0.705
Self-blame tendency	4.11 (2.15)	4.32 (2.62)	0.693	0.524
Allergy tendency	4.75 (2.19)	4.97 (2.82)	0.289	0.792
Terror tendency	3.07 (2.24)	3.24 (2.13)	0.842	0.356
Impulse tendency	2.48 (2.13)	2.73 (2.52)	1.157	0.187

The following suggestions were proposed: firstly, the government should strengthen the overall coordination, strengthen the leadership of rural left behind children's work and the supervision of project construction, and build a care system combining family, the community and school. Secondly, we should mobilize the strength of all sectors of society and pay attention to the left-behind children's psychological growth. In essence, the psychological problem of left-behind children in rural areas is a comprehensive minor education problem which embodies a variety of contradictions and conflicts in the social transformation of the integration of urban and rural civilization. From one side, it reflects the current situation that urban development is not coordinated with rural development, and economic development is not coordinated with social development. In order to completely change this uncoordinated situation, we need to gather social forces for long-term joint efforts.

Thirdly, parents should shoulder the responsibilities to raise their children. Compared with non-left-behind children, the biggest gap of left-behind children is that their parents go out to work and lack of normal family environment and parental care. Most of left-behind children are between 7 and 14 years old. This stage is the second critical stage of children's growth, and the normal development of parent-child relationship plays a very important role during this period. Parents' love and warmth for children is the key to the normal physical and mental development of children. They can make children get a sense of security. Let the parents contact the left-behind children regularly, and often have emotional exchanges and parent-child interaction with their children through phones and Internet, so that they can fully feel the love of their parents.

4 Conclusion

Psychological problems hinder the health growth of rural left-behind children, especially in psychology development. This study designed a special social intervention program and the intervention results revealed positive effects of this program on the psychological health of rural left-behind children. Compared with the control left-behind children (group 2), the left-behind children in the experimental group 1 had positive changes in learning anxiety, physical symptoms, anxiety about people, loneliness tendency, self-blame tendency, allergy tendency, terror tendency and impulse tendency. And their mental health can be rehabilitated to the level of non-left-behind children in group 3. Only through the common efforts of family, school and society can we improve the psychological characteristics of left behind children in rural areas, especially in poor areas.

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