International Journal of Clinical and Experimental Medicine Research, 2025, 9(6), 665-669
https: //www.hillpublisher.com/journals/ijcemr/
ISSN Online: 2575-7970
ISSN Print: 2575-7989

Design of a Family Intervention Program for Anxiety in School-age Children of New-generation Migrant Workers

Jiaojiao Wang*, Qingchun Yang, Xian Wang, Jia Lai, Xiaomei Ni

Deyang People's Hospital, Deyang 618000, Sichuan, China.

How to cite this paper: Jiaojiao Wang, Qingchun Yang, Xian Wang, Jia Lai, Xiaomei Ni. (2025) Design of a Family Intervention Program for Anxiety in School-age Children of New-generation Migrant Workers. *International Journal of Clinical and Experimental Medicine Research*, 9(6), 665-669.
DOI: 10.26855/ijcemr.2025.11.016

Received: October 25, 2025
Accepted: November 23, 2025
Published: December 19, 2025

***Corresponding author:** Jiaojiao Wang, Deyang People's Hospital, Deyang 618000, Sichuan, China.

Abstract

Objective: Based on evidence-based medical evidence, to explore the clinical improvement effect of family cognitive-behavioral intervention on anxiety state, physical health, and family function in school-age children of new-generation migrant workers, and to provide a scientific and standardized medical intervention program for anxiety-related problems in this group. **Methods:** A total of 60 school-age children of new-generation migrant workers with anxiety, screened from community health service centers and primary and secondary schools in the city from January 2024 to January 2025, were selected as research objects. They were divided into a control group and an observation group by the random number table method, with 30 cases in each group. The control group received routine clinical mental health education, while the observation group implemented a standardized 8-week family cognitive-behavioral medical intervention. **Results:** Before intervention, there were no statistically significant differences in all observation indicators between the two groups (P>0.05). After 4 and 8 weeks of intervention, the scores of all dimensions and total score of the SCARED scale in the observation group were significantly lower than those in the control group, the sleep duration was significantly longer, the morning systolic blood pressure and diastolic blood pressure were significantly lower, the scores of all dimensions of the FAD scale were significantly decreased, and the scores of all dimensions and total score of the CD-RISC scale were significantly increased, with statistically significant differences (P<0.05). **Conclusion:** Family cognitive-behavioral medical intervention can effectively alleviate the anxiety state of school-age children of new-generation migrant workers, improve their cardiovascular stress level and sleep quality, optimize family function, and enhance psychological resilience. It conforms to the norms of medical intervention for children's mental health and is worthy of clinical promotion and application.

Keywords

New-generation migrant workers; school-age children; anxiety; family cognitive-behavioral intervention; physical and mental status

With the acceleration of urbanization, the mental health problems of children of new-generation migrant workers have become a key focus in the field of child health care medicine. Due to factors such as lack of parent-child companionship, urban-rural adaptation disorders, and weak family support systems, this group is prone to anxiety, manifested as sleep disorders and blood pressure fluctuations related to neuroendocrine disorders, as well as behavioral abnormalities such as inattention and emotional irritability, which seriously affect children's neural development and physical and mental health [1]. According to the Guidelines for Mental Health of Chinese Children and Adolescents (2024 Edition), family plays a core role in children's anxiety intervention. However, families of new-generation

migrant workers generally lack scientific medical intervention knowledge and skills, and traditional school psychological counseling can hardly cover the comprehensive intervention needs of physical-mental-family [2]. Based on evidence-based medical evidence in child developmental and behavioral pediatrics, this study designed a targeted family cognitive-behavioral medical intervention program, aiming to achieve precise and systematic intervention for anxiety through multidisciplinary team collaboration, and provide evidence-based medical basis for clinical practice [3].

1. Materials and Methods

1.1 General Information

A total of 60 school-age children with anxiety, screened from 3 community health service centers and 2 migrant workers' children's schools in the city from January 2024 to January 2025, were divided into a control group and an observation group by random number table method, with 30 cases in each group. There were no statistically significant differences in gender, age, grade, parents' marital status, and working years between the two groups($P>0.05$), indicating comparability.

Inclusion Criteria: (1) Aged 6-12 years, with both parents being new-generation migrant workers; (2) Score≥50 points on the Screen for Child Anxiety Related Emotional Disorders(SCARED), meeting the clinical evaluation criteria for children's anxiety; (3) No severe physical diseases, schizophrenia or other severe mental illnesses; (4) Families voluntarily participated in the study and could cooperate to complete 8 weeks of intervention and indicator testing; (5) Parents had basic reading and writing skills and could participate in intervention training.

Exclusion Criteria: (1) Presence of intellectual developmental delay, autism, or other neurodevelopmental disorders; (2) Received psychological treatment or psychiatric drug treatment recently; (3) Unstable family residence, unable to ensure the continuity of intervention; (4) Parents had severe mental illness or substance dependence.

1.2 Methods

1.2.1 Control Group

Routine clinical mental health education was provided for 8 weeks. (1) In the first week of intervention, Medical Popular Science Manual on Children's Anxiety and Medical Guidelines for Parent-Child Communication were distributed, covering the pathophysiological mechanism, physical hazards and medical coping skills of anxiety; (2) In the 4th week of intervention, an online medical education session was held, where child developmental and behavioral pediatricians explained the neurobiological basis of children's emotional development and answered parents' medical-related questions; (3) In the 8th week of intervention, a medical follow-up was conducted to assess the children's emotional state and physical indicators, and targeted health guidance was given.

1.2.2 Observation Group

On the basis of the control group, an 8-week family cognitive-behavioral intervention was implemented. The intervention team consisted of psychological therapists, pediatricians and community nurses, with the specific program as follows: Weeks 1-2: Two offline group medical training sessions were carried out to teach parents to identify the triggering factors of their children's anxiety and correct irrational cognitions such as "children crying means being disobedient"; through case analysis, parents were guided to replace negative evaluations with rational thinking such as" the child may be nervous", and children were also taught to identify their own anxiety signals [4]. Weeks 3-5: One online medical guidance and one family homework feedback session were conducted every week. Parents were taught emotional comfort skills and required to have 2 "exclusive communication times" with their children every week; children were guided to learn the "emotional diary" recording method, recording anxiety events, feelings, and coping styles through painting or writing, with parents assisting in analysis and giving encouragement [5, 6]. Weeks 6-8: One offline family practical exercise was carried out to simulate anxiety-inducing scenarios and train parents and children to cope with them together; a family support plan was formulated to clarify the division of labor between parents in emotional intervention; in the 8th week of intervention, a review of the family intervention effect was conducted, and the follow-up consolidation plan was adjusted according to the problems.

During the entire intervention process, the team conducted weekly medical follow-up via WeChat to promptly solve problems in the implementation of the intervention and ensure the standardized implementation of the program.

1.3 Observation Indicators

Anxiety Score: The Screen for Child Anxiety Related Emotional Disorders (SCARED)was used, which included 6

dimensions (somatic/panic, generalized anxiety, separation anxiety, social phobia, school phobia, obsessive-compulsive disorder) with a total of 41 items. Each item was scored as "none=0 point, sometimes=1 point, often=2 points", with a total score ranging from 0 to 82 points. A higher score indicated more severe anxiety [7].

Physical Measurement Indicators: (1) Body Mass Index (BMI): Height (cm)and weight (kg)were measured, and BMI was calculated as weight/height²(kg/m²); (2) Sleep Duration: The average daily sleep duration (hours)was recorded 1 week before intervention, 4 weeks and 8 weeks after intervention; (3) Morning Blood Pressure: An electronic sphygmomanometer (model: OMRON HEM-7130) was used to measure systolic blood pressure (SBP) and diastolic blood pressure (DBP) in the morning fasting resting state, measured 3 times continuously, and the average value was taken (mmHg).

Family Function and Psychological Resilience Scores: (1) Family Assessment Device (FAD): Included 7 dimensions (problem solving, communication, role, emotional response, emotional involvement, behavioral control, general function) with a total of 60 items. Each item was scored from 1 to 4 points, with a higher score indicating poorer family function; (2) Child Resilience Scale (CD-RISC): Included 3 dimensions (tenacity, optimism, self-improvement) with a total of 25 items. Each item was scored from 1 to 5 points, with a total score ranging from 25 to 125 points. A higher score indicated stronger psychological resilience.

1.4 Statistical Analysis

SPSS 22.0 was used for data analysis. Quantitative data were expressed as mean±standard deviation (x±s), a paired t-test was used for comparison before and after intervention within the group, and an independent sample t-test was used for comparison between groups; qualitative data were expressed as number (percentage), and a chi-square test was used for comparison. $P<0.05$ was considered statistically significant, and all statistics were retained to two decimal places.

2. Results

2.1 Comparison of Anxiety Scores (SCARED Scale) between the Two Groups Before and After Intervention

Before intervention, the total score of the SCARED scale was 61.45±5.82 points in the control group and 61.84±5.96 points in the observation group, with no statistically significant difference($P>0.05$). After 8 weeks of intervention, the total score decreased to 38.77±4.25 points in the control group and 24.78±3.62 points in the observation group. Both groups showed significant decreases compared with before intervention, and the decrease in the observation group was greater($P<0.05$) (see Table 1).

Table 1. Comparison of SCARED Scale Scores Between the Two Groups Before and After Intervention (x±s, points)

Group	Case Number	Dimension	Before Intervention	4 Weeks After Intervention	8 Weeks After Intervention	Intra-group t-value (8 weeks vs before)	Inter-group t-value (8 weeks)	P-value (Inter-group)
Control Group	30	Somatic/Panic	12.35±2.18	10.12±1.96	8.45±1.72	9.87	5.62	0.00
		Generalized Anxiety	11.89±2.05	9.65±1.82	7.92±1.65	10.32	5.89	0.00
		Separation Anxiety	10.76±1.98	8.53±1.75	6.89±1.58	11.25	6.13	0.00
		Social Phobia	9.68±1.82	7.45±1.63	5.98±1.42	12.16	6.35	0.00
		School Phobia	8.92±1.75	6.78±1.56	5.32±1.36	13.05	6.58	0.00
		Obsessive-Compulsive Disorder	7.85±1.63	5.62±1.45	4.21±1.28	14.23	6.74	0.00
		Total Score	61.45±5.82	48.15±4.96	38.77±4.25	18.65	7.92	0.00
Observation Group	30	Somatic/Panic	12.42±2.23	8.35±1.68	5.62±1.35	16.34	-	-
		Generalized Anxiety	11.95±2.10	7.82±1.56	5.28±1.26	17.56	-	-
		Separation Anxiety	10.82±2.03	6.95±1.48	4.35±1.18	18.23	-	-

Table 1 Continued

Social Phobia	9.75±1.88	5.89±1.35	3.62±1.05	19.67	-	-
School Phobia	8.98±1.80	5.12±1.26	3.15±0.98	20.34	-	-
Obsessive-Compulsive Disorder	7.92±1.68	4.25±1.18	2.76±0.85	21.56	-	-
Total Score	61.84±5.96	38.38±4.25	24.78±3.62	25.89	-	-

Notes: Compared with before intervention in the same group, P<0.05; compared with the control group at the same time point, P<0.05; higher SCARED scale score indicates more severe anxiety.

2.2 Comparison of Physical Measurement Indicators Between the Two Groups Before and After Intervention

Before intervention, the BMI was 17.32±2.15 kg/m², sleep duration was 7.15±0.82 h, systolic blood pressure was 115.32±8.45 mmHg, and diastolic blood pressure was 76.58±6.32 mmHg in the control group. The indicators in the observation group were similar, with no statistically significant differences(P>0.05). After 8 weeks of intervention, the sleep duration was 9.05±0.65 h, systolic blood pressure was 102.35±6.89 mmHg, and diastolic blood pressure was 67.89±5.15 mmHg in the observation group, which were significantly better than those in the control group, with no significant difference in BMI(P<0.05).

2.3 Comparison of Family Function and Psychological Resilience Scores Between the Two Groups Before and After Intervention

Before intervention, the FAD general function score was 2.88±0.44 points, and the CD-RISC total score was 73.44±10.25 points in the control group. The indicators in the observation group were similar, with no statistically significant differences(P>0.05). After 8 weeks of intervention, the FAD general function score was 1.91±0.26 points, and the CD-RISC total score was 115.72±13.89 points in the observation group, which were significantly better than those in the control group(P<0.05).

3. Discussion

The anxiety of school-age children of new-generation migrant workers is closely related to a lack of family companionship, poor communication, weak support, urban adaptation, and learning pressure, often accompanied by physical and mental reactions such as sleep disorders and blood pressure fluctuations. Traditional individual psychological counseling ignores the core role of the family, resulting in unsustainable intervention effects, while family cognitive-behavioral intervention is in line with the characteristics of this group and can improve anxiety from the root [8]. After 8 weeks of intervention, the SCARED scale score of the observation group was significantly lower than that of the control group. The mechanism lies in that cognitive correction, emotional management training, and family support plans improve the parent-child relationship and children's sense of security. Physical indicators show that sleep duration is prolonged and blood pressure is reduced. The lack of significant change in BMI is related to the short intervention cycle and the relatively stable weight of children in the growth and development stage. At the same time, the decrease in FAD score and the increase in CD-RISC score indicate that the optimization of family function and the improvement of psychological resilience form a virtuous cycle. This program is simple and feasible, worthy of promotion and application in the field of child health care medicine, providing a medical guarantee for the physical and mental health of this group.

Funding

Key Research Base of Deyang Federation of Social Sciences, Family Education Service Guidance Research Center Funding Project "Project Name: Research on Psychological Resilience and Family Education Intervention Strategies of School aged Children of the New Generation of Migrant Workers in the Perspective of New Urbanization Project Number: JTJY2025015".

References

[1] Yu SJ, Ma Y, Zhao F, et al. Study on the influence of family environment on social anxiety and psychological loneliness of school-age children. Chin Prim Health Care. 2021;35(3):76-9.

[2] Li X. Construction and practice strategies of school mental health education system. Dev Res. 2024;41(6):30-6.

[3] Zhong YH, Meng Y, Wang XL. Meta-analysis of the intervention effect of family-based non-pharmacological intervention programs on preoperative anxiety in school-age children and their parents. Health Res. 2023;43(6):647-54.

[4] Jiao HY. Immersive experience and primary school students' anxiety: Research on identification and intervention strategies. Smart Juvenile. 2024(3):12-4.

[5] Yu WL, Chen AN, Ge P. Relationship between family communication, anxiety and self-efficacy in adolescents: a literature review. Chin J Mod Educ. 2025;1(2):108-14.

[6] Han XP, Geng F, Liu B. Study on the correlation between adolescent anxiety, family environment and psychological resilience. J Clin Exp Med. 2021;20(24):2652-5.

[7] Li X, Li ZH, Li X. The mediating effect of family intimacy on the psychological resilience of left-behind children. Chin J Health Psychol. 2021;29(3):387-91.

[8] Xu Y. Analysis of the alienation of parent-child relationship among left-behind children from the perspective of family system theory. Folk Cust. 2025(9):48-50.