

ABSTRACT

of the dissertation for the degree of Doctor of Philosophy (PhD)
in the specialty "6D090500-Social Work"

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on the topic: "**Social rejection of children with attention deficit/hyperactivity disorder in the school system**"

Rationales of Study. Despite the prevalence and adverse consequences of social rejection of children with ADHD, in Kazakhstan, no study aimed at exploring risk factors and protective factors against rejection has been conducted. Lack of this knowledge restricts the development and implication of social support of children with ADHD at school, while one of the main priorities of the development Kazakhstan's education system in the coming years is creating safe learning environments without stigmatization, discrimination and violence. There is the deficit-oriented approach; most studies have been focused only on risk factors giving rise to impairments in children with ADHD. Although, social rejection, as well as other problems in the development and adaptation of children, is the consequence of trying to strike a balance between risk and protective factors. Empirical knowledge about risk factors and protective factors against social rejection of children with ADHD in the Kazakh context may help social work practitioners to determine intervention strategies.

The study aim: investigate the influence of the risk factors for social rejection of children with ADHD and protective factors that compensate for and reduce their negative impact to determine school social work intervention strategies.

The study objectives:

1. analyze the origins and maintenance of social rejection of children with ADHD at school;
2. investigate and summarize previous studies that attempted to explore individual, family and social risk and protective factors of social rejection of children with ADHD;
3. develop and test models of the influence of risk factors and protective factors on social rejection using empirical research in groups of children with ADHD and their typically developing peers;
4. determine school social work interventions to prevent and reduce social rejection of children with ADHD at school.

The general hypotheses:

1. children with ADHD of the city of Almaty experience significantly higher level of social rejection from peers than typically developing children do;
2. children with ADHD of the city of Almaty have higher level of emotional/behavioral problems, conflicts in the student-teacher relationship, parental rejection, and lower level of academic performance, prosocial behavior, extracurricular activity, parental warmth and dyadic friendship than typically developing children do;
3. risk factors (1) emotional/behavioral problems, (2) academic performance, (3) conflicts in the student-teacher relationship, and (4) parental rejection will predict the social rejection both of children with ADHD and of typically developing children;

4. protective factors: (1) prosocial behavior, (2) extracurricular activity, (3) parental warmth, and (4) dyadic friendship will display a compensatory effect and will reduce the rejection by classmates of children in both groups within the context of the risk factors;

5. protective factors will have a moderating effect and will mitigate the relationship between risk factors and the rejection by classmates of both groups;

6. protective factors (1) family and (2) school social support will compensate for the risk factors and mitigate the relationship between risk factors and social rejection of children with ADHD.

Methods and measures

Theoretical methods. The theoretical analysis of scientific literature is carried out, methods of modeling, comparison, classification, generalization, synthesis, schematization are applied.

Measures. Social rejection was measured using a standard sociometric procedure (Coie, 1983). Independent variables were measured using the following measures: 1) measures adapted into Russian in previous studies: Strengths and Difficulties Questionnaire (Goodman, 1997) and Parental Acceptance-Rejection Questionnaire (Rohner, 1984); 2) measures translated and adapted in this study: Student-Teacher Relationship Scale – Short Form (Pianta, 1992) and Perceived Social Support Scale (Ma, 2017); 3) developed by the author of the dissertation: Extracurricular Activity Scale and socio-demographic questionnaire.

Data analysis. The data were analyzed using IBM Statistics SPSS 21 software. Descriptive statistical analysis was carried out by calculating the percentage, average and standard deviation in both groups. An independent *t*-test and one-way ANOVA were conducted in order to investigate whether there were significant differences in variables between the groups of children with ADHD and typically developing children. Pearson correlation coefficient was calculated to explore the relationship between social rejection and independent variables. A stepwise multiple linear regression was applied to estimate the effects of the risk factors on social rejection. A hierarchical multiple linear regression was applied to assess the main and moderating effects of the protective factors.

The empirical basis of the study was the public schools of Almaty. Two groups have been formed: 1) a group of children aged 7 to 12 years (108 participants) with clinically diagnosed ADHD by doctors at the time of recruitment; 2) a group of typically developing children of the same class, gender and age (108 participants). Classmates (2484 students), teachers (108 participants) and parents (216 people) of children from the first and second sample took part in the study.

Scientific novelty

1. Empirical knowledge about social rejection of children with ADHD in Kazakhstan schools was obtained (using the example of the city of Almaty). Statistical differences in social rejection between children with ADHD and typically developing children were assessed.

2. Statistical differences in emotional and behavioral problems, academic performance, prosocial behavior, extracurricular activity, the quality of teacher-student relationship, dyadic friendship, parental warmth and parental rejection between

children with ADHD and their typically developing peers were evaluated. Empirical knowledge about social support perceived by parents of children with ADHD was obtained.

3. In one predictive model, the effect of risk factors of individual (emotional-behavioral difficulties and academic performance), family (parental rejection) and social (conflicts in the student-teacher relationship) levels on social rejection of children with ADHD and their typically developing peers was evaluated.

4. The compensatory and moderating effects of protective mechanisms of the individual (prosocial behavior and extracurricular activity), family (parental warmth) and social (dyadic friendship) levels in the group of children with ADHD and the comparison group were evaluated simultaneously. Also, for the first time, the influence of family and school social support on social rejection of children with ADHD was studied.

5. Extracurricular activity scale aimed at measuring the involvement (diversity and intensity) of children in various activities outside the learning process has been developed and applied.

6. An integrated model of social work including interventions at individual, family and social levels aimed to prevent and/or reduce social rejection of children with ADHD at school has been developed.

Theoretical significance

This study fills an existing gap in empirically conditioned knowledge about social rejection of children with ADHD in Kazakhstan. The results of testing a predictive model that includes risk factors at individual, family, and social levels show the need to supplement existing theoretical approaches in understanding the causes of the origin and persistence of social rejection among children with ADHD. Testing social rejection risk resilience models increased knowledge of the protective mechanisms that help children with ADHD maintain successful social functioning in a peer environment. Simultaneous study of protective factors at three levels (individual, family and social) made it possible to identify the most powerful factors and this can become the basis for constructing theoretical approaches to understanding protective mechanisms. The study of a wide range of factors of social rejection stimulates the use of an ecological approach in the study of the problems of the social functioning of children with ADHD, and also actualizes the search for their strengths and resources.

Practical significance

The study actualizes the need for the formation of a state policy to support children with ADHD in schools, emphasizes the need for the development of psychosocial services for children with ADHD and their parents. The study promotes a strength-based approach and an ecological development model in the social work practice. Knowledge about the risk and protective factors and their role in predicting the social rejection of children with ADHD in the context of the Kazakhstan education system can become the basis for the development of effective preventive measures and intervention programs. Based on theoretical analysis and empirical data, the study developed a model of social work practice aimed at preventing and reducing social rejection of children with ADHD in Kazakhstan schools. The questionnaire Student-Teacher Relationship Scale (Pianta, 1992) adapted from English and Extracurricular

Activity Scale developed by thesis's author may be applied in social work practice at school. The Perceived Social Support Scale (Ma, 2017) may become a practical tool for social work with children with ADHD and their families in education and health care, and can also may promote interagency cooperation, which is one of the priority areas for the development of social work in Kazakhstan.

Provisions submitted for defense:

1. Children with ADHD in Almaty schools experienced higher level of social rejection than their typically developing peers did.

2. Children with ADHD in Almaty schools have higher levels of emotional-behavioral difficulties, conflict in their student-teacher relationships and parental rejection than their typically developing peers. Conversely, they have lower levels of academic performance, prosocial behavior, extracurricular activity, and parental warmth than the typically developing children. Children with ADHD and their parents do not receive a sufficient level of social support from school and family, the desired and perceived informative support are especially strongly mismatched.

3. Risk factors at multiple levels: individual (emotional-behavioral difficulties and academic performance), family (parental rejection), social (conflicts in the student-teacher relationships) predict social rejection in both groups. Emotional and behavioral problems have a stronger effect in predicting peer rejection of children with ADHD and typically developing children than the other risk factors do. The quality of relationships with teachers has a stronger predictive power in children with ADHD.

4. Protective factors at multiple levels: individual (extracurricular activity), family (parental warmth and family social support), social (school social support and friendship), compensate for all the risks of peer rejection in children with ADHD except the effect of prosocial behavior after controlling for emotional/behavioral problems. Individual, family and social factors mitigate the relationship between risk factors and social rejection of typically developing children, but do not have an impact in children with ADHD except social factors. School social support is the only factor reducing the negative impact of emotional and behavioral difficulties on social rejection of children with ADHD, and positive dyadic relationships reduce the relationship between academic performance and rejection.

5. Extracurricular activity scale developed in the study has a sufficient degree of validity and reliability and may be used in school social work practice to evaluate extracurricular activity and develop interventions.

6. Intervention strategies of social work practice to prevent and/or reduce social rejection of children with ADHD should be comprehensive and aimed at working with children with ADHD, their families, and school professionals. Social worker should promote services to reduce the emotional and behavioral problems of children with ADHD, improve their relationships with teachers, stimulate dyadic friendships and promote school social support. The integrated model of social work developed in this study may contribute to improving the social functioning of children with ADHD in Kazakh schools and requires further testing in practice.

Description of the contribution of the doctoral student to the preparation of each publication.

Eleven articles on the research topic were published, including: in a foreign edition included in the international database of scientific journals Scopus – 1; in journals recommended by the Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan – 4; in collections of international scientific and practical conferences – 6.

Compliance with directions of development of science or government programs. In accordance with the Strategic Plan of the Ministry of Education and Science of the Republic of Kazakhstan for 2020-2024, the dissertation corresponds to one of the priority directions of school education development - ensuring a safe school environment free from stigmatization, discrimination and violence.