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**ADAPTATION OF THE RUSSIAN-LANGUAGE VERSION OF  
CHILDREN'S REPORT OF PARENTAL BEHAVIOR INVENTORY**

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***Abstract***

The article presents the psychometric characteristics of the Russian version of The Children's Report of Parental Behavior Inventory, mother and father versions (CRPBI, Schludermann & Schludermann, 1988). The questionnaire is designed to study the perception of parental attitudes by children of primary school age and adolescents. The study involved 1060 children, of whom 690 were primary school age children (mean age = 9.26, SD = 1.04, 52.5% boys), and 370 were adolescents (mean age = 13.27, SD = 1.2, 59.5% boys). The structure of the questionnaire was studied using exploratory factor analysis of the correlation matrix of the responses to each statement. The method of the principal components was chosen for the analysis. To confirm the obtained structure of the questionnaire, confirmatory factor analysis was used. In the course of the study, the four-factor structure of the questionnaire was confirmed, with the following scales: Acceptance, Positive involvement, Rejection and Hostile detachment. Satisfactory internal consistency of these scales on both analyzed samples was revealed. The effect of age and sex on the questionnaire scores was estimated on the samples of primary school children and adolescents. In particular, the sex factor was significant for the 'positive' scales of maternal attitude with girls rating it higher than boys. For the perception of paternal attitude, the sex factor was significant for three scales of the questionnaire with girls rating the paternal attitude higher than boys on the 'positive' scales – Acceptance and Positive involvement, and boys rating it higher than girls on Rejection.

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**Keywords:** Perception of parental attitude, Perception of maternal attitude, Perception of paternal attitude, Questionnaire, Primary school age, Adolescence



## **1. Introduction**

The problem of parent-child relationships has been the subject of a wide range of interdisciplinary research. The researchers' attention is explained by the importance of the role of the family environment in the formation of individual differences in psychological characteristics (Tikhomirova, Malykh, 2017, Tikhomirova et al., 2017; Rodic et al., 2015; Pougnet et al., 2011; Harold et al., 2007, etc.). In order to obtain more accurate estimates of parent-child relationships, assessments of both parents and a child are necessary. Indeed, several studies of the family environment emphasize the low degree of agreement between the scores of mothers and children who filled out the same psychodiagnostic tool with correlation coefficients from 0.11 to 0.41 for younger adolescents (Tsaousis et al, 2012). According to some experts, the perception of the child by the parents is informative for understanding the relationships in the parent-child system (for example, Deater-Deckard et al., 2009).

## **2. Problem Statement**

The Children's Report of Parental Behavior Inventory was developed specifically to study the perception of the parental attitude. The original version of this questionnaire consisted of 260 items each (Schaefer, 1965). Two further versions of the questionnaire were subsequently developed, consisting of 56 and 30 items (for example, Schludermann, Schludermann, 1988). The questionnaire includes two parts: Maternal attitude and Paternal attitude, which allows studying a child's perception of mother's and father's attitude separately.

## **3. Research Questions**

The questionnaire is designed to study the perception of parental attitudes by children of primary school age and adolescents. For the purpose of adaptation of the Russian version of The Children's Report of Parental Behavior Inventory the factor structure of the questionnaire was studied in two age categories, the internal consistency of the questionnaire scales was established, and the effects of sex and age were assessed.

## **4. Purpose of the Study**

Thus, the purpose of this work was to adapt the Russian-language short version of the Children's Report of Parental Behavior Inventory including Maternal attitude and Paternal attitude. To achieve this goal, 1) the factor structure of the questionnaire was studied, 2) the internal consistency of the questionnaire scales was established and 3) the effects of sex and age were assessed.

## **5. Research Methods**

### **5.1. Sample**

The study involved 1060 children including 690 children of primary school age (47.5% girls, 52.5% boys) and 370 adolescents (40.5% girls, 59.5% boys). The mean age of primary school children was 9.26 years (SD = 1.04), the mean age of adolescents was 13.27 (SD = 1.2). Written informed consent

was obtained from the parents of all participants. The data was collected anonymously with each participant having been assigned a personal identification number.

## **5.2. Method**

The child's perception of the parental attitudes was assessed using a short version of The Children's Report of Parental Behavior Inventory, mother and father versions (CRPBI, Schludermann & Schludermann, 1988). Direct and reverse translation of the questionnaire items, names of scales and instructions was performed by Russian- and English-speaking specialists in the field of psychology of child-parent relations.

According to the original (English) version of the questionnaire, aspects of the perception of the parent relationship should be considered as quantitative indicators of the scales of the questionnaire: 1) Acceptance; 2) Positive involvement; 3) Rejection; 4) Hostile detachment. The scale Acceptance consists of 8 statements (for example, "Cheers me up when I'm sad"); Positive involvement includes 7 statements (for example, "Is very interested in what I am learning at school"); Rejection consists of 7 items (for example, "Almost always complains about what I do" and "Gets cross and angry about little things I do"); Hostile detachment includes 8 statements (for example, "Wishes I were a different kind of person").

Thus, the questionnaire The Children's Report of Parental Behavior Inventory consists of 30 statements concerning parental attitude to a child. A child is supposed to fill out two identical variants of the questionnaire relating to the parent relationship of 1) the mother and 2) the father, by choosing one of the three possible answers: "Not true", "Sort of true", "True".

## **5.3. Analysis**

The structure of the questionnaire was studied using an exploratory factor analysis of the correlation matrix of responses to each statement. For the analysis, the method of the principal components with Varimax rotation was chosen as the most appropriate one for generalizing the available data and reducing the number of variables.

To confirm the structure of the questionnaire, the method of confirmatory factor analysis (statistical package Mplus) was used. The following indices were used as criteria for the correspondence of models to the empirical data: CFI – Comparative Fit Index, TLI – Tucker-Lewis index, RMSEA – root mean square error of approximation, WRMR – weighted root mean square residual. The CFI and TLI values above 0.9, the RMSEA value below 0.05, and the WRMR value being close to 1 indicated a good fit (Geiser, 2012). The ratio of the chi-square to the number of degrees of freedom (df) below 3 was considered as the relative compliance index (Geiser, 2012).

The reliability of the questionnaire scales was determined using the Cronbach's alpha coefficient of internal consistency. The Cronbach's alpha coefficients above 0.7 were considered satisfactory.

The estimation of sex and age factors was carried out by the method of two-way analysis of variance.

## 6. Findings

### 6.1. Exploratory factor analysis

The factor analysis of the correlation matrix of the responses for Maternal attitude variant by the method of the principal components with Varimax rotation revealed five factors with 50.87% and 50.42% explained variance on the samples of primary school children and adolescents, respectively. The factor analysis of the correlation matrix of responses for Paternal attitude variant revealed a different structure of the questionnaire on the samples of primary school children and adolescents. In particular, a five-factor structure was revealed on the sample of primary school children with 53.6% of the explained variance. An analysis of the responses of adolescents revealed 4 factors explaining 56.7% of the variance. At the same time, there are no theoretical prerequisites for a five-factor solution (e.g., Tsaousis et al., 2012). Thus, based on the analysis of the scree plot and on the eigenvalues of the factors, a four-factor solution was chosen as the most adequate for describing the obtained data.

### 6.2. Confirmatory factor analysis

To confirm the revealed structure of the questionnaire we used confirmatory factor analysis. Table 01 presents the results of confirmatory factor analysis.

**Table 01.** Fit indices for the four-factor model of The Children's Report of Parental Behavior Inventory, mother and father versions

Model		$\chi^2 / df$	TLI	CFI	RMSEA	WRMR	90% CI
Primary school age	Maternal attitude	1.59	.90	.90	.035	1.07	.030 – .040
	Paternal attitude	1.84	.91	.89	.042	1.02	.036 – .048
Adolescence	Maternal attitude	1.58	.90	.90	.041	1.01	.034 – .046
	Paternal attitude	1.85	.95	.95	.054	1.10	.047 – .060

In accordance with the abovementioned fit criteria, the four-factor confirmatory model describes well the data on Maternal attitude and Paternal Attitude on the two age-specific samples. At the same time, it can be seen from Table 01 that the best fit indexes were obtained on a sample of children of primary school age.

### 6.3. Internal consistency

Table 02 presents the descriptive statistics and the internal consistency coefficients for the scales of The Children's Report of Parental Behavior Inventory on the two samples.

**Table 02.** Descriptive statistics and Cronbach's alpha coefficients for the scales of The Children's Report of Parental Behavior Inventory

Scales		Primary school age			Adolescence		
		M	SD	Cronbach's alpha	M	SD	Cronbach's alpha
Acceptance	Maternal attitude	20.06	2.72	0.73	19.95	3.22	.81
	Paternal attitude	19.49	3.9	0.84	18.91	4.22	.87
Positive involvement	Maternal attitude	17.85	2.41	0.74	17.84	2.47	.73
	Paternal attitude	17.28	3.0	0.76	16.50	3.39	.81
Rejection	Maternal attitude	10.07	2.88	0.75	9.61	2.74	.79
	Paternal attitude	9.97	3.1	0.81	9.53	3.24	.86
Hostile detachment	Maternal attitude	11.73	3.53	0.79	10.70	2.99	.79
	Paternal attitude	11.74	3.6	0.79	11.04	3.71	.86

Note: M – mean, SD – standard deviation.

From Table 02, it can be seen that there are similar trends in the mean values on the questionnaire scales for the two analyzed ages. Thus, there is a tendency to an increase in the parental attitude of mothers and fathers with child's age on the "positive" scales of the questionnaire (Acceptance and Positive involvement) and to a decrease in the mean values of the "negative" scales (Rejection and Hostile detachment). The mean values of maternal attitude are somewhat higher for the "positive" scales than the mean values of the same indicators for fathers. For "negative" scales, a different trend is observed: children of two age categories evaluate the attitude of mothers and fathers in almost the same way.

The Cronbach's alphas reach satisfactory values for all scales of the questionnaire: from 0.73 to 0.84 on the sample of primary school age children and from 0.73 to 0.86 on the adolescent sample. These results confirm the reliability of the scales of The Children's Report of Parental Behavior Inventory.

#### 6.4. ANOVA

To evaluate the effect of sex and age, two-way analysis of variance was used. Levene's test for the equality of variances was used to test all distributions of the analyzed variables. For all scales of the Children of Report of Parental Behavior Inventory (in two versions), the significance level was less than 0.05 suggesting the inequality of variances in the analyzed indicators.

Table 03 presents the generalized results of the two-way analysis of variance (the upper and lower rows correspond to Maternal attitude and Paternal attitude, respectively), where the "Age" factor represents the age of participants in the study expressed as "number of months / 12", and the "Sex" factor

is the sex of participants in the study; dependent variables are the scales of The Children's Report of Parental Behavior Inventory.

**Table 03.** [Assessment of the effects of age and sex on the analyzed indicators]

Analyzed effect	Scale	Sum of squares (SS)	Fisher's value (F)	Significance level (p)	Effect size ( $\eta^2$ )
Factor "Age"	Acceptance	1028.27	1.23	.07	.16
		1559.47	.93	.68	.15
	Positive involvement	627.83	1.04	.38	.14
		1014.26	1.00	.47	.16
	Rejection	1006.62	1.27	.04	.16
		870.74	.83	.08	.14
	Hostile detachment	1568.14	1.42	.01	.19
		1630.42	1.21	.10	.19
Factor "Sex"	Acceptance	99.10	12.16	.00	.02
		67.53	4.09	.04	.01
	Positive involvement	26.02	4.44	.03	.01
		77.30	7.82	.01	.02
	Rejection	2.57	.34	.57	.00
		55.58	5.39	.02	.01
	Hostile detachment	6.37	.60	.44	.01
		35.82	2.71	.10	.00

The results of the analysis of variance on Maternal attitude presented in the upper rows of Table 03 confirm the statistical significance of the effects of age and sex. In this case, the effect of age is significant for "negative" scales – Rejection ( $\eta^2 = 0.16$ ,  $p = 0.04$ ) and Hostile detachment ( $\eta^2 = 0.19$ ,  $p = 0.01$ ). At the same time, the influence of sex appears to be significant for "positive" scales – Acceptance and Positive involvement – with insignificant effects (1% and 2%, respectively) with girls being more positive about the maternal attitude towards them. The effect of the interaction of factors was not significant. It should be noted that Levene's test shows the inequality of variances of dependent variables. This fact may have influenced the effects.

The analysis of variance of paternal attitude did not show the effect of age. However, the effect of sex was statistically significant for the indicators on the three scales of the questionnaire: Acceptance, Positive involvement and Rejection ( $\eta^2 = 0.01$ ,  $\eta^2 = 0.02$  and  $\eta^2 = 0.01$ ,  $p < 0.05$ ). Interestingly, girls in general are more likely to assess paternal attitude higher than boys on the "positive" scales of Acceptance and Positive involvement, and boys rate it higher on the "negative" scale of Rejection.

The interaction of the factors of age and sex was not statistically significant.

## 7. Conclusion

According to the psychometric indicators obtained in this work, The Children's Report of Parental Behavior Inventory can be used to study children's perception of the parental attitude. It was also shown

that the questionnaire has a four-factor structure, in which the following scales are distinguished: Acceptance, Positive involvement, Rejection and Hostile detachment.

The effects of the factors of age and sex were estimated. In particular, for maternal and paternal attitude a different pattern of the effect of age was demonstrated. Thus, the effect of age was significant for the "negative" scales of the parent relationship – Rejection and Hostile detachment. For the paternal attitude, the effect of age was not statistically significant.

A small statistically significant effect of sex on attitudes of both mothers and fathers was found. In particular, the sex factor appears to be significant for the "positive" scales of maternal attitude. At the same time, girls rate maternal positive attitude toward them higher than boys. For the indicators of perception of the paternal attitude, the sex factor was significant for the three scales of the questionnaire with girls rating the paternal attitude on "positive" scales higher than boys, and boys rating it higher on Rejection. These results are in good agreement with the existing work on the perception of parental attitude by children (e.g., Pougnet et al., 2011).

The Children's Report of Parental Behavior Inventory allows analyzing the perception of parent-child relationships with research objectives on the samples of children of primary school age and adolescence. In addition, the presence of the options Maternal attitude and Paternal attitude makes it possible to differentiate the perception of the attitudes of mothers and fathers.

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