

Research in Education and Rehabilitation 2019; 2(1): 1-10.

DIFFERENCES IN THE FUNCTIONING OF FAMILIES OF CHILDREN WITH INTELLECTUAL DISABILITIES AND CHILDREN OF TYPICAL DEVELOPMENT

RAZLIKE U FUNKCIONISANJU PORODICA DJECE SA INTELEKTUALNIM TEŠKOĆAMA I DJECE TIPIČNOG RAZVOJA

Adelisa Salkić[1], Milena Nikolić[2]*, Medina Vantić-Tanjić[2]
[1]Center for Early Intervention "Little World" Bistarac Donji bb, 75 300 Lukavac, Bosnia and Herzegovina
[2]Faculty of Education and Rehabilitation University of Tuzla, Univerzitetska 1, 75 000 Tuzla, Bosnia and Herzegovina
*nmilena78@gmail.com

Original scientific articles

ABSTRACT

A family that achieves family goals considers as functional family, while a family that does not meet family goals considers as dysfunctional. The study was aimed to examine the differences in the functioning of families of children with intellectual disabilities and families of children with typical development. The sample consisted of parents of primary school children (N=80) divided into two sub-samples, namely a sub-sample of parents of children with intellectual disabilities (N=40) and a sub-sample of parents of typical development children (N=40). Family functioning was examined with the Beavers model of family functioning by using the Self-report Family Inventory scale Version II. After giving written consent to participate in the study, the parents completed the scale individually. Differences among the respondents regarding the functioning of families have been examined by the χ^2 test and the t-test. Statistical data processing was done in the statistical package SPSS 21.0 for Windows. The results showed that the families of the two groups of children were statistically significantly different in terms of family functioning (χ^2=14.031, p=0.029), as well as in the two family dimensions, health/competence (t=2.462, p=0.021) and expressiveness (t=1.743, p=0.043). More families that are dysfunctional reported in families of children with intellectual disabilities, and these families are slightly worse than families of children with typical development on family dimensions of health/competence and expressiveness.

Key words: family functioning, Beavers model of family functioning, children with intellectual disabilities, children of typical development, family dimensions

Research in Education and Rehabilitation 2019; 2(1): 1-10.

SAŽETAK

Funkcionalnom porodicom smatra se porodica koja dostiže porodične ciljeve, dok se disfunkcionalnom smatra porodica koja ne ispunjava porodične ciljeve. Cilj istraživanja bio je ispitati razlike u funkcionisanju porodica djece s intelektulanim teškoćama i porodica djece tipičnog razvoja. Uzorak ispitanika sačinjavali su roditelji djece osnovnoškolskog uzrasta (N=80) podijeljen na dva subuzorka i to: subuzorak roditelja djece sa intelektualnim teškoćama (N=40) i subuzorak roditelja djece tipičnog razvoja (N=40). Za ispitivanje funkcionisanja porodica koristio se je Beavers model porodičnog funkcionisanja, a primjenjena je Skala samoprocjene porodičnog inventara verzija II. Roditelji su, nakon davanja pismene saglasnosti za sudjelovanje u istraživanju, individualno popunjavali skalu. Razlike među ispitanicima u pogledu funkcioniranja porodica ispitane su χ^2 testom i t-testom. Statistička obrada podataka rađena je u statističkom paketu SPSS 21.0 for Windows. Rezultati su pokazali da se porodice dvije grupe djece statistički značajno razlikuju u pogledu porodičnog funkcionisanja (χ^2=14.031; p=0.029), kao i u dvije porodične dimenzije, zdravlje/kompetencije (t=2.462, p=0.021) i emocionalna ekspresivnost (t=1.743, p=0.043). Veća disfunkcionalnost se bilježi u porodicama djece sa intelektualnim teškoćama, te su ove porodice nešto lošije od porodica djece tipičnog razvoja na porodičnim dimenzijama zdravlje/kompetencije i ekspresivnost.

Ključne riječi: funkcionisanje porodica, Beavers model porodičnog funkcionisanja, djeca sa intelektualnim teškoćama, djeca tipičnog razvoja, porodične dimenzije

Research in Education and Rehabilitation 2019; 2(1): 1-10.

INTRODUCTION

The term functional/dysfunctional family often used to define the "normality" of a family (Cicović Maslovar, 2015). The criterion to determine whether the family is functional or dysfunctional refers to the patterns of organizing the family process. A form considered as functional or dysfunctional depending on how well it fits or how well it fits into a particular context or family situation rather than its intrinsic qualities. A family pattern is functional if can be used to achieve family goals, while the term dysfunctional describes family patterns that do not meet tasks and goals, so symptoms or dissatisfaction occur (Cicović Maslovar, 2015). Merkaš (2012) states that family functioning provides information about the weaknesses and strengths of the family and its members. Family competence, which can go from successful and healthy family functioning to various dysfunctional patterns, is a continuum, not a series of separate categories. A competent family can change their style depending on developmental changes, while dysfunctional families show a marked rigidity of style.

Family functioning is viewed through several models in the literature that are used to evaluate family functioning, and Cicović Maslovar (2015) states that multidimensional systemic perceptions of family functioning are presented in three commonly used models: Circumplex model, McMaster model, and the Beavers model. A family functioning in this study was examined by the Beavers model of family functioning. The Beavers model of family functioning (Beavers & Hampson, 2000) assesses two dimensions: family competence and family-style. The results can be presented on a diagram in which the vertical axis represents the family-style, which in this model can be centripetal or centrifugal, while the horizontal axis shows the results for family competencies. The intersection of these two dimensions yields nine groups of families, two of which are functional families (optimal and adequate) and seven groups of dysfunctional families (mid-range families - centripetal, centrifugal and mixed; borderline families - centripetal and centrifugal; severely dysfunctional families - centripetal and centrifugal).

Foreign research shows that families with a child with developmental disabilities function differently and that greater degree of dysfunction is often encountered in these families (Axelsson, Granlund, & Wilder, 2013; Dyson, 1993; Fenning, J. Baker, B. Baker, & Crnic, 2007; Fenning, J. Baker, B. Baker, & Crnic, 2014; Rani et al., 2018; Rieger & McGrail, 2013). Dyson (1993) examined parental stress and the functioning of a family of children with disabilities and typical development children at two-time points. The results showed a stable high level of parental stress and a moderate degree of consistency in the functioning of families of children with disabilities. Families of children with disabilities exhibited greater levels of parental stress in both periods than parents of children of typical development. Interesting research was conducted by Rieger and McGrail (2013), who investigated whether parental humor is one of the predictors of family functioning in families of children with developmental disabilities. The sample included 72 parents of children with autism spectrum disorders and multiple disabilities. The results showed that humor was a significant, albeit poor predictor of family cohesion and adaptability, but on the other hand, the educational level and number of children in the family have a significant predictive effect on family cohesion and adaptability.

Fenning et al. (2007) examined parenting among families of children with borderline intellectual functioning compared with families of children with typical development and children with disabilities. Parenting data were obtained from mothers of five-year-old children through naturalistic home observation. Mothers of children with borderline intellectual

Research in Education and Rehabilitation 2019; 2(1): 1-10.

functioning showed less positive and less sensitive parenting behavior than other mothers show, and showed the least style of positive engagement. It was not observed that children with borderline intellectual functioning had more behavioral problems than other children; however, their mothers noticed more externalizing symptoms than mothers of typically developed children did. Fenning et al. (2014) conducted another study investigating parent-child interactions over time in families of young children with borderline intellectual functioning and families of typically developing children. Fathers were also included in the research and families were monitored for one year. The results showed that mothers of children with intellectual disabilities between the ages of 5 and 6 years showed a greater increase in negatively controlled parenting than mothers of typical children; fathers exhibited more negative behavior in compared to fathers of typically developed children. Also, children with borderline intellectual functioning alone showed more significant escalations in undesirable behaviors than did children of typical development. Rani et al. (2018) investigated the functioning of families in India using a systems approach and included 62 families of children with intellectual disabilities and 62 families of children with typical development in the study. The results showed that about 53% of families of children with intellectual disabilities and 19% of families of typical children were dysfunctional, and the authors conclude that a greater degree of dysfunction is prevalent in families of children with intellectual disabilities.

Foreign research shows that the functioning of families of children with disabilities in general, as well as families of children with intellectual disabilities, differs from the functioning of families of children with typical development, while in Bosnia and Herzegovina there are no studies of this type. The aim of this research imposed itself, due to these facts. This research was aimed to examine differences in the functioning of families of children with intellectual disabilities and families of children with typical development. According to the results of foreign research, as well as the lack of systematic support for families of children with intellectual disabilities in our country, the research started from the assumption that families will differ in their functionality. It was assumed that are more dysfunctional families would be more represented in families of children with intellectual disabilities in relation to the families of typical children.

MATERIAL AND METHODS

Sample of participant

The sample was composed of parents of primary school children (N = 80). The sample was divided into two sub-samples: the sub-sample of parents of children with intellectual disabilities (N=40) and the sub-sample of parents of children with typical development (N=40).

A sub-sample of parents of children with intellectual disabilities consisted of parents whose children attend the Public Institution “Institute for the education of persons with psychical and physical disabilities” in Tuzla and parents whose children are beneficiaries of the Public Institution “Cazin II” Primary School - Canter for Development of Inclusive Practices in Cazin. The criteria for selecting parents of children with intellectual disabilities were the diagnosis of intellectual disabilities (mild and moderate intellectual disabilities) in the child. The sample is appropriate because the sample includes all parents of children with intellectual disabilities who were in these institutions.

Research in Education and Rehabilitation 2019; 2(1): 1-10.

The sample of parents of children with typical development consisted of parents whose children attend the elementary school "Gornja Koprivna" Cazin. The selection criteria for this sample were to equalize the sub-samples of parents according to the school-age of the children.

Method of conducting research

The study was conducted in the cities of Tuzla and Cazin. Requests for research work were sent to the institutions, as well as the proper ministries. After obtaining the consent to conduct the research, the parents, who made the sample, were asked for written consent to participate in the research, after which the research work began. Parents completed the scale individually after being explained the principle of completing measuring instruments.

Measuring instruments

The Self-report Family Inventory scale Version II – SFI (Beavers & Hampson, 1990, as cited in Beavers & Hampson, 2000) was used in the research and it consisting of 36 items. The scale is a Likert type on which family members, in this case parents, rate their family in the range of 1 to 5 (1 - YES, fits my family very well; 3 - SOMETIMES, sometimes fits in my family; 5 - NO, it does not fit in my family; unless the family members are not sure and believe that the claim is between odd numbers, that is, between YES and SOMETIMES or SOMETIMES and NO, they can round out even numbers between, respectively 2 or 4). SFI has a high internal consistency ratio (Cronbach's Alpha between 0.84 and 0.93 and test-retest reliability of 0.85 or better). SFI assesses 5 family dimensions: health/competencies, conflict, cohesion, leadership, and expressiveness. Lower scores indicate higher competencies across all dimensions. For the interpretation of the results of the SFI scale on the diagram, the results achieved on the dimension of health/competence should be entered on the horizontal axis, and they represent the family competence, while on the vertical axis should be entered the result on the dimension of cohesiveness, which is used to assess family style. In this study, Cronbach's Alpha was 0.79. A General Questionnaire was also constructed that was designed for this research to capture general information about parents.

Data processing methods

The response was presented with frequencies and percentages as well as descriptive statistics. Differences among the respondents regarding the functioning of families were examined by the χ^2 test and the t-test. Statistical data processing was done in the statistical package SPSS 21.0 for Windows.

RESULTS AND DISCUSSION

Groups of families of children with intellectual disabilities and typical development children according to the Beavers model of family functioning are presented in Table 1.

Research in Education and Rehabilitation 2019; 2(1): 1-10.

Table 1. Groups of families of children with intellectual disabilities and children of typical development according to the Beavers model of family

	Group of families	Family of children with	
		Intellectual disabilities N (%)	Typical development N (%)
Functional families	Optimal families	2 (5.0)	2 (5.0)
	Adequate families	13 (32.5)	28 (70.0)
	Sum	**15 (37.5)**	**30 (75.0)**
Dysfunctional families	Mid-range centripetal families	12 (30.0)	3 (7.5)
	Mid-range mixed families	9 (22.5)	5 (12.5)
	Mid-range centrifugal families	2 (5.0)	2 (5.0)
	Borderline centripetal families	1 (2.5)	-
	Borderline centrifugal families	-	-
	Severely dysfunctional centripetal families	1 (2.5)	-
	Severely dysfunctional centrifugal families	-	-
	Sum	**25 (62.5)**	**10 (25.0)**

χ^2=14.031, p=0.029

The results presented in Table 1 show that the families of typical development children are in greater numbers (N=30 or 75.0%) in one of the functional family groups, namely 2 (5.0%) are optimal families, while 28 (70.0%) is adequate families. In the group of dysfunctional families, there are 10 (25.0%) families of children with typical development. Families of children with intellectual disabilities, on the other hand, are more dysfunctional (N=25 or 62.5%), namely 12 (30%) are mid-range centripetal families, 9 (22.5%) are mid-range mixed families, 2 (5.0%) are mid-range centrifugal families, 1 (2.5%) is borderline centripetal family, and 1 (2.5%) is severely dysfunctional centripetal family. Only 15 (37.5%) families of children with intellectual disabilities are functional, namely 2 (5.0%) are optimal and 13 (32.5%) are adequate families. The significance of the observed differences between families in terms of functioning was tested by the χ^2 test, which showed that the families of the two groups of children were statistically significantly different (χ^2=14.031, p=0.029).

The results obtained were expected because it was assumed that families of children with intellectual disabilities would exhibit a greater degree of dysfunctional. The results of the study are in line with foreign studies in which a greater degree of dysfunction has also been observed in families of children with intellectual disabilities (Fenning et al., 2014; Fenning et al., 2007; Rani et al., 2018). On the other hand, research conducted by Dyson (1997) shows that there are no differences in family functioning between families of children with intellectual disabilities and families of children with typical development, but parents of children with intellectual disabilities have been shown to experience significantly greater levels of stress.

The higher degree of dysfunction in families of children with intellectual disabilities can be explained by the fact that the presence of a child with intellectual disabilities puts all family

Research in Education and Rehabilitation 2019; 2(1): 1-10.

members in a specific position, especially parents who are often overwhelmed by the effort to meet the special needs of the child (Kraljević, 2011). Also, being a parent of a child with a disability often described as significantly more challenging than parenting a child of typical development, burdened with factors such as the child's specific needs and heightened demands for additional health support (Van Ijzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992, as cited in Mihić, Rajić, & Krstić, 2016). Denona (1999, as cited in Leutar & Štambuk, 2007) points out that everyday experiences and research findings indicate that families differ in adjustment. Not all families accept in the same way the fact that the child has a disability, and that the child is not the typical child they had hoped for over the past nine months. However, the results of this study and the research conducted abroad show that the birth and presence of a child with intellectual disability disturb family functioning and that families clearly cannot cope with the challenges that a child with intellectual disability puts in front of family as a whole and that these families need systemic and continues support to successfully cope with the challenges they face and to be functional families. Only functional families will be able to perform their role, that is, as stated by Kraljević (2011), to be the basis for the child's overall development, physical and psychological, as well as social and spiritual development.

The SFI scale measuring five family dimensions: health/competencies, expressiveness, cohesion, leadership, and conflict. Only two dimensions, health/competences, and cohesion use to determine the type of families in the diagram of the Beavers family function model, while the other dimensions do not take into account when determining family functioning. Therefore, there was a need to identify differences in the functioning of families on each family dimension. The differences in the results of parents of children with intellectual disabilities and children with typical development concerning the summary results for each family dimension are presented in Table 2.

Table 2. Differences in the functioning of families on each family dimension concerning summary results

Family dimension	Family of children with	AM	SD	t	p
Expressiveness	Intellectual disability	8.3000	3.61762	1.743	0.043
	Typical development	7.1250	2.25534		
Leadership	Intellectual disability	6.3500	3.03442	0.222	0.978
	Typical development	6.2000	3.01449		
Conflict	Intellectual disability	27.2500	6.27061	3.786	0.266
	Typical development	22.4500	4.99718		
Cohesion	Intellectual disability	9.6750	2.40075	0.830	0.909
	Typical development	9.2000	2.70991		
Health/competence	Intellectual disability	34.0750	12.52155	2.462	0.021
	Typical development	28.4250	7.33760		

As noted above, lower scores on all family dimensions signify greater competencies on them. Mean scores by dimensions are health/competence 57, cohesion 12, conflict 36, leadership 9 and expressiveness 15, and below-average results indicate that families have better functioning on these dimensions. Values of arithmetic means for each of the five family dimensions that

are presented in Table 2, show that both groups of families, families of children with intellectual disabilities and families of children with typical development, achieve results below the mean values on all five family dimensions, indicating that both groups of families have satisfactory competences on all five dimensions. However, Table 2 shows that the arithmetic means of families of children with typical development on all five dimensions is lower than the arithmetic mean of families of children with intellectual disabilities. The t-test was performed to determine whether the observed difference were statistically significant. The results of the t-test showed that there was a statistically significant difference between the families of children with intellectual disabilities and children of typical development in the two family dimensions, namely the dimension health/competence ($t=2.462$, $p=0.021$) and the expressiveness dimension ($t=1.743$, $p=0.043$). There was no statistically significant difference between the two groups of families in the other three family dimensions: cohesion, conflict, and leadership. Similar results obtain Rani et al. (2018) who found that families of children with intellectual disabilities differed from families of children with typical development on dimensions of family functioning such as beliefs, cohesiveness, support, etc., but that both groups of families achieved positive results on the dimensions.

Most of the research, as well as this research, deals with the impact of child characteristics on family functioning, while the results of the research conducted by Timothy et al. (2011) show that factors such as income, available time to interact with the child, and social support predict parents' stress much better than aspects of the child's functioning. Therefore, when researching family functioning in families of children with intellectual disabilities, or developmental disabilities in general, it should take into account that many other factors can influence family functioning besides the presence of a child with disabilities. Another limiting circumstance encounter in the research of this issue, which relates to the fact that research on the impact of a child with an intellectual disability on the family focuses solely on mothers. Therefore, Ridding & William (2019) conducted a study aimed to examining fathers' experiences of parenting a child with Down syndrome, their impact on family functioning, and involvement in supporting their child. Semi-structured interviews conducted with 15 fathers and the results showed that the path of father adjustment depends on three key factors: child adaptation, parent/spouse role adjustment, and social adjustment. The results showed that fathers, despite practical and emotional challenges, use strategies to achieve positive adjustment. Fathers identified the need for services to recognize their role and involve them in supporting their child.

CONCLUSION

The results showed that greater dysfunction observed in families of children with intellectual disabilities and that families of children with intellectual disabilities were slightly worse than families of children with typical development in two family dimensions: health/competences and expressiveness. It is important to emphasize that both groups of families have satisfactory competences on all five dimensions. The results obtained in this research should be taken with some caution because of the limitations of the measuring instrument that was used, because it is uncertain how culturally appropriate is it for our social environment and family functioning characteristics. Also, this research focuses on the impact of the presence of a child with intellectual disabilities in the family on family functioning, and other factors that may affect family functioning have not been investigated. Also, for the most part, information was obtained from mothers, and fathers were not sufficiently represented.

Given these limitations, it would certainly be advisable to repeat the study on a larger sample of parents of both groups and try to remedy the shortcomings observed in this study. In addition to the limitations identified, the results obtained can be a good starting point for further examination of this issue in our region.

REFERENCES

1. Axelsson, A., Granlund, M., & Wilder, J. (2013). Engagement in family activities: a quantitative, comparative study of children with profound intellectual and multiple disabilities and children with typical development. *Child: care, health, and development*, *39*(4), 523-534. https://doi.org/10.1111/cch.12044
2. Beavers, W. R., & Hampson, R. B. (2000). The Beavers system model of family functioning. *Journal of Family Therapy*, *22*, 128-143. https://doi.org/10.1111/1467-6427.00143
3. Cicović Maslovar, J. (2015). *Uloga porodičnog funkcionisanja i samopoimanja u predikciji antisocijalnog ponašanja u adolescenciji (Doktorska disertacija).* Beograd: Univerzitet u Beogradu, Filozofski fakultet.
4. Dyson, L. L. (1993). Response to the presence of a child with disabilities: parental stress and family functioning over time. *American Journal on Mental Retardation*, *98*(2), 207-218.
5. Dyson, L. L. (1997). Fathers and Mothers of School-Age Children with Developmental Disabilities: Parental Stress, Family Functioning, and Social Support. *American Journal on Mental Retardation, 102*(3), 267-279. https://doi.org/10.1352/ 0895-8017 (1997)102<0267:FAMOSC>2.0.CO;2
6. Fenning, R., Baker, J., Baker, B., & Crnic, K. (2007). Parenting children with borderline intellectual functioning: a unique risk population. *American Journal on Mental Retardation, 2*, 107-121. https://doi.org/10.1352/0895-8017(2007)112[107:PCWBIF]2.0.CO;2
7. Fenning, R., Baker, J., Baker, B., & Crnic, K. (2014). Parent-child interaction over time in families of young children with borderline intellectual functioning. *Journal of Family Psychology, 28*(3), 326-335. https://doi.org/10.1037/a0036537
8. Kraljević, R. (2011). Neki indikatori promjena nakon podrške roditeljima djece s posebnim potrebama primjenom Integrativnog Geštalt pristupa. *Hrvatska revija za rehabilitacijska istraživanja, 47*(1), 41-48. Retrieved from https://hrcak.srce.hr/63441
9. Leutar, Z., & Štambuk, A. (2007). Invaliditet u obitelji i izvori podrške. *Hrvatska revija za rehabilitacijska istraživanja, 43*(1), 47-61. Retrieved from https://hrcak.srce.hr/22099
10. Merkaš, M. (2012). *Uloga obitelji u razvoju socijalne kompetencije adolescenata (Doktorska disertacija).* Zagreb: Sveučilište u Zagrebu, Filozofski fakultet.
11. Mihić, I., Rajić, M., & Krstić, T. (2016). „NAŠA PRIČA" - Program podrške roditeljima dece sa smetnjama u razvoju: primer dobre prakse u predškolskim ustanovama. *Specijalna edukacija i rehabilitacija, 15*(4), 477-498.

12. Rani, P., Charles, H., Sudhakar Russell, P., Selvaraj, K., Mammen, P., Russel, S., & C Nair, M. (2018). Dysfunction among Families of Children with Intellectual Disability in India Using Systems Model: Prevalence, Pattern, and Severity of Impairment. *Indian Journal of Psychological Medicine, 40*(1), 33-37.
13. Ridding, A., & Williams, J. (2019). Being a dad to a child with Down's syndrome: Overcoming the challenges to adjustment. *Journal of Applied Research in Intellectual Disabilities, 32*(3), 678-690. https://doi.org/10.1111/jar.12563
14. Rieger, A., & McGrail, J. (2013). Coping humor and family functioning in parents of children with disabilities. *Rehabilitation Psychology, 58*(1), 89-97. https://doi.org/10.1037/a0031556
15. Timothy, B., Smith, P., Matthew, N., Oliver, M., Mark, S., & Innocenti, P. (2011). Parenting Stress in Families of Children with Disabilities. *American Journal of Orthopsychiatry banner, 71*(2), 257-261. https://doi.org/10.1037//0002-9432.71.2.257