Family Functioning of People with Disabilities: Cluster-Based Analysis

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Abstract: Disability tends to impact family functioning in different ways. The aim of this study was to investigate the family functioning clusters of people with disabilities, comparing them in terms of sociodemographic characteristics, social support, autonomy, and prejudice. A sociodemographic questionnaire, Family Cohesion and Flexibility Rating Scale, Prejudice Scale and Social Support Satisfaction Scale were used in 205 people. Three clusters were identified: Low, Medium, and High Family Functioning. The low Family Functioning group had the lowest levels of Social Support and highest levels of prejudice; whereas the high Family Functioning group was characterized by higher education, higher Social Support, and lower prejudice. In conclusion, the relevance of understanding disability and its impact on Family Functioning is highlighted from a broader viewpoint, which relates it to psychosocial variables (prejudice, Social Support and schooling), beyond the issue of the injury itself.

Keywords: people with disabilities, family, prejudice

Funcionamento Familiar de Pessoas com Deficiência: Análise Baseada em Clusters

Resumo: A deficiência tende a impactar o funcionamento familiar de diferentes formas. Este estudo teve como objetivo investigar os clusters de funcionamento familiar de pessoas com deficiências, comparando-os quanto às características sociodemográficas, ao suporte social, à autonomia e ao preconceito. Utilizou-se um questionário sociodemográfico, Escala de Avaliação da Coesão e Flexibilidade Familiar, Escala de Preconceito e Escala de Satisfação com o Suporte Social em 205 pessoas. Três clusters foram identificados: Baixo, Médio e Alto Funcionamento Familiar. O grupo de baixo Funcionamento Familiar apresentou os níveis mais baixos de Suporte Social e mais altos de preconceito; já o grupo de alto Funcionamento Familiar se caracterizou pela maior escolaridade, maior Suporte Social e menor preconceito. Conclui-se evidenciando a relevância de se compreender a deficiência e seu impacto no Funcionamento Familiar a partir de uma visão mais ampla, que a relaciona a variáveis psicossociais (preconceito, Suporte Social e escolaridade), para além da questão da lesão em si.

Palavras-chave: pessoas com deficiência, família, preconceito

Funcionamiento Familiar de las Personas con Discapacidad: Análisis Basado en Clusters

Resumen: La discapacidad tiende a afectar al funcionamiento de la familia de diferentes maneras. Este estudio pretendía investigar los grupos de funcionamiento familiar de personas con discapacidad, comparándolos en términos de características sociodemográficas, apoyo social, autonomía y prejuicios. Se utilizó un cuestionario sociodemográfico, la Escala de Evaluación de la Cohesión y Flexibilidad Familiar, la Escala de Preconcepto y la Escala de Satisfacción con el Soporte Social en 205 personas. Se identificaron tres grupos: funcionamiento familiar bajo, medio y alto. El grupo de bajo Funcionamiento Familiar mostró los niveles más bajos de Soporte Social y los niveles más altos de prejuicios; mientras que el grupo de alto Funcionamiento Familiar se caracterizó por una mayor educación, mayor Soporte Social y menores prejuicios. Concluimos destacando la relevancia de entender la discapacidad y su impacto en el Funcionamiento Familiar desde una visión más amplia, que la relacione con variables psicosociales (prejuicios, Soporte Social y educación), más allá de la cuestión de la lesión en sí.

Palabras clave: personas con discapacidad, familia, prejuicio

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People with disabilities are those who have long-term impairments of a physical, mental, intellectual or sensory nature, which, in interaction with various barriers, may obstruct their full and effective participation in society on equal terms with others (Law No. 13.146, 2015). Disability is a broad concept, related to multiple factors, whether individual, social, cultural and family.

From the perspective of the social model, disability does not represent a natural inequality, but rather oppression exerted on the person with some injury. In this sense, the injury represents a body data with no value, while disability is the result of the interaction of a body with injury in a discriminatory society, therefore understood as a matter of rights and social justice (Cunha, 2021). Disability should not, therefore, be the exclusive matter of biomedical knowledge, but mainly of actions at different levels of support, whether political, economic, legal, and social. The International Classification of Functioning, Disability and Health (ICF) consider disability in an integrated way, from the medical and social models, in order to provide a coherent view of different perspectives of health: biological, individual and social.

The family system is an important context for the psychosocial development process of the person with disabilities (Roque Hernández & Acle Tomasin, 2013). The family's adaptation process depends on multiple factors, from the existence of a social support network to factors such as family functioning (Dilleggi, Rosa, & Santos, 2019). Olson's Circumplex Model (Olson, 2000) is considered a useful model for assessing family functioning, as it focuses on the system and integrates three dimensions of analysis, constantly considered as relevant in family models and family therapy approaches: cohesion, flexibility, and communication (Gouveia-Pereira, Gomes, Miranda, & Candeias, 2020). Family cohesion is the emotional bond established between family members and refers to how the people who make up the family system balance closeness and separation. Cohesion can vary along a continuum, ranging from disconnected families (extremely low levels of cohesion) to agglutinated families (extremely high levels of cohesion). Family flexibility, on the other hand, is the ability of family members to adapt in the face of change, through changes in the exercise of leadership, roles and functions, and relational rules. Finally, communication facilitates the management of family cohesion and flexibility, allowing family members, based on positive communication skills, to deal with the different demands inherent to the development of the members and the family group, as well as those arising from life events or situations (Olson, 2000). In this adaptation and flexibilization process, some families may act in a protective way, offering support and opportunities to the person with disability, or offer a greater risk, by limiting and hindering their autonomy processes (Dilleggi et al., 2019).

Autonomy is defined as a process related to the development of one's own opinions and decision-making, which occurs in the social context and is exercised in different spheres of life and at different levels. The autonomy of a person with a disability implies that he or she has learned some ability necessary to perform tasks that are important to him or her (for example, personal hygiene, the ability to get dressed, to go to the bathroom, and to decide what he or she wants to eat), but that he or she has also been given the right and permission to act on what he or she has learned (Allen-Leigh, Katz, Rangel-Eudave, & Lazcano-Ponce, 2008). The development

of autonomy occurs in a context of social interaction, when the people who are close to them, diminish control and allow people to experience freedom and make their own choices, according to their interests.

Healthy functioning families can positively influence the development of the person with disabilities by promoting pro-social behaviors, offering developmentally facilitating activities and resources (Renzaho, Mellor, McCabe, & Powell, 2013). Thus, it is assumed that a good balance of cohesion, flexibility, and communication translates into a more functional family. On the other hand, unbalanced levels of cohesion, flexibility, and communication are associated with problems in family functioning. For example, a person with a disability (physical, mental, intellectual, or sensory) may need constant supervision, increased attention, and care. However, the person may not be stimulated in his or her autonomy process, becoming a source of care overload, as well as a target of overprotection by parents or caregivers.

Moreover, another challenge faced by people with disabilities is to experience the process of social inclusion, given the conception of disability imbued with prejudice. Prejudice may be defined as a hostile attitude against an individual, simply because he belongs to a socially devalued group (Allport, 1979). In this context, due to this inability of inclusion (of society, families, and the Public Power), people with disabilities often have lower levels of education and higher unemployment rates (Neri, 2017; Vasconcelos & Wellichan, 2022). Although at the turn of the century, Brazil regulated the new Employment Quotas Law for People with Disabilities (PWDs), there are few references in the Brazilian literature about the real impact of these actions, or others, on the effective social inclusion of this segment (Neri, 2017; Vasconcelos & Wellichan, 2022).

A small amount of research explores perceptions of family functioning from the adult person with disabilities, focusing more exclusively on the functioning of families of children with disabilities (Roque Hernández & Acle Tomasin, 2013). Overall, the literature tends to focus on the risk perspective that pathologizes parents with disabilities and assumes negative outcomes for their children (Olkin, Abrams, Preston, & Kirshbaum, 2006). However, in examining these families, it seems clear that there is a diversity of experiences, in which the family may have both favorable and unfavorable family functioning for their psychosocial development (Dilleggi et al., 2019; Jacob, Canchola, & Preston, 2019). In this way, even if it is recognized that the existence of a person with disability can cause significant changes in the family, either because of its particular characteristics or the need to reorganize the environment to meet the child's needs, cohesive families that establish affective proximity among its members and that have good communication skills are able to offer more protective contexts and promote the development.

Furthermore, studies on disability tend to focus on the process of inclusion in education and work, as well as on individual processes of the person with disability. The emphasis on family functioning as well as on

autonomy, social support, and prejudice broadens the literature and may point to possibilities of interventions with these individuals and families. Considering the importance of assessing disability in interface with the family, this study aimed to investigate the clusters of family functioning of people with disabilities, comparing them regarding socio-demographic characteristics, social support, autonomy, and prejudice.

Method

This is a cross-sectional, quantitative, descriptive and analytical study.

Participants

A total of 205 people with disabilities, residents of a capital city in the Northeast, participated in the study; 111 (54.7%) were women and 92 (45.3%) were men. The mean age of the participants was 37.67 years old and ranged from 18 to 91 years. Most participants had physical disabilities (n = 111; 45.9%), followed by hearing (n = 49; 23.9%), visual (n = 42; 20.5%), and intellectual (n = 21; 10.3%). Most of the participants work (n = 143; 69.75%). The individual income of the participants ranged from R$ 0 to R$ 8,200.00, with a mean value of R$ 1,329. Family income ranged from R$825.00 to R$30,000.00, and the average value was R$3,224.00. The sampling was by convenience, including people with disabilities (visual, hearing, physical, mental or intellectual), of both genders, aged 18 years or older, who were physically and cognitively able to answer the instruments that make up this study.

Instruments

Sociodemographic and disability characterization questionnaire. This instrument was specially designed for this study. It is made up of 27 questions, 21 referring to socio-demographic characterization (age, sex, education, occupation, income, religion, etc.) and six questions referring to the characterization of the disability (type, degree of independence, etc.).

Autonomy Levels Scale. This instrument was developed for this study, consisting of a list of 11 activities (e.g. preparing meals, managing the house and taking care of personal belongings, bathing, dressing, combing hair, moving around inside the house, moving around outside the house, etc). For each activity, the participants evaluated the degree of difficulty (1-None difficulty, 2- Mild difficulty, 3- Moderate difficulty, 4- Severe difficulty, 5- Complete difficulty). The average of the total autonomy was obtained from the sum of the values of the degree of difficulty, divided by the total number of the activities experienced; the higher the score, the lower the level of autonomy of the participant.

Family Cohesion and Flexibility Rating Scale - FACES IV. The FACES IV is based on Olson's Circumplex Model of the Marital and Family System, and for this study, we used the version with validity evidence in Brazil, found by Santos, Bazon, and Carvalho (2017). The scale is composed of 64 items, distributed in eight subscales: two balanced scales (cohesion and flexibility), four unbalanced subscales (dismembered, chaotic, tangled, and rigid), and two communication and satisfaction subscales. Answered on a five-point Likert scale, their items consist of statements about the family. The scores are calculated and transformed into percentile scores, and together, low scores on the balance subscales are indicators of problematic family functioning, while high scores are indicative of healthy family functioning. With regard to the imbalance subscales, low scores indicate healthy family functioning and low scores indicate dysfunctional family functioning. On the first 52 items of the instrument, the participant has to mark on a five-point scale (SD - strongly disagree to SA - strongly agree) how much they agree or disagree with the statements (e.g. "Family members are involved in each other's lives"; and "Family members seem to avoid contact with each other when they are at home"). On the remaining ten statements, respondents mark, on a five-point scale, their degree of satisfaction (VD - very dissatisfied to ES - extremely satisfied) with the following questions (e.g. "The degree of closeness between family members"; and "The family's ability to be flexible"). The total Faces Scale showed adequate internal consistency in this study (alpha = 0.88). Its subscales presented an internal consistency ranging from 0.54 to 0.88, as can be seen below: Balanced Cohesion (*alpha* = 0.74); Balanced Flexibility *(alpha* = 0.70); Disconnected (*alpha* = 0.61); Entangled (*alpha* = 0.54); Rigid (*alpha* = 0.65); Chaotic (*alpha* = 0.74); Communication (*alpha* = 0.82); and Satisfaction (*alpha* = 0.88). Due to the low levels of reliability of some dimensions, for this study only the core dimensions of Olson's Circumplex model were used: Balanced Cohesion (*alpha* = 0.74); Balanced Flexibility (*alpha* = 0.70); Communication (*alpha* = 0.82); and Satisfaction (*alpha* = 0.88).

Prejudice Scale (Dell´Aglio, Koller, Cerqueira-Santos, & Colaço, 2011). It aims to evaluate the prejudice suffered throughout life in 10 items. The participants should mark on a scale from 1 - Never to 5 - Always, how much they have suffered or suffer prejudice (e.g. by skin color, religion, disability, sexual orientation, etc.). The scale presented an adequate internal consistency for this study (*alpha* = 0.82).

Social Support Satisfaction Scale. The version of the scale cross-culturally adapted between Brazil and Portugal by Marôco, Campos, Vinagre, and Pais-Ribeiro (2014) was used, in which the authors reduced the instrument to 12 items, with a four-factor structure: satisfaction with friendships, intimacy, satisfaction with family, and social activities. The items were measured on a 5-point Likert scale, from 0 - strongly disagree to 4 - strongly agree. Some examples of items are: "My friends don't seek me out as often as I would like"; and "I miss social activities that satisfy me". The total Social Support Scale showed an adequate internal consistency (*alpha* = 0.76). The dimensions presented an internal consistency that ranged from 0.66 to 0.80: Friendships (*alpha* = 0.80); Intimacy (*alpha* = 0.66); Family (*alpha* = 0.78); an Social Activities (*alpha* = 0.68).

Procedure

Data collection. Before data collection began, five pilot questionnaires were administered to five people with disabilities. The instruments were adapted to be accessible to people with visual and hearing disabilities. With the help of a person with low vision, changes were made in the layout of the questions (e.g., tables were removed and the items in them were fragmented), so that blind or low-vision people could answer the instruments with autonomy, using screen readers. A video was also recorded in Brazilian Sign Language (LIBRAS), containing all the items of the original questionnaires. In it, there were brief explanations and visual cues about how to fill out the instruments, including the Likert-type scales. For the adaptation, the authors had the advice/collaboration of a libras interpreter, from the revision of the items of the instrument, to the recording and editing of the video. In addition, when applying the questionnaire to the deaf population, the research team had the support of interpreters of Libras, who were provided by the authors' home institution. After all these precautions to ensure the accessibility of the interviewees, the researchers involved in the data collection process (first author and two scientific initiation fellows) were trained to apply the instruments.

The participants were recruited by convenience, from invitations, either on social networks, or through contacts with five governmental organizations and six non-governmental organizations (vocational schools for people with disabilities, *Instituto dos Cegos, Instituto dos Surdos*, and dance school for people with disabilities, among others). Furthermore, using the snowball methodology, new participants were indicated by those who had already taken part in the research.

All instruments used were in pencil and paper format and could be self-applied, if the participants wished. Aiming to facilitate the researcher-participant interaction and optimize the completion time, the first author and the two scientific initiation fellows filled out or helped to fill out the instruments, when the participants preferred, although most of the time, the participants filled out the questionnaires themselves.

Data analysis. The data from each participant were entered into the Statistical Package for Social Science - SPSS (version 22) and submitted to descriptive and inferential analysis. Descriptive statistics were calculated for the total sample, focusing on the variables of this study: socio-demographic characterization of the participants; characterization in terms of the disability they have, levels of autonomy, experience of prejudice, family functioning, and social support.

Cluster analyses were conducted in order to group the participants into different profiles of family functioning. Cluster analysis is a multivariate exploratory technique capable of gathering subjects or variables into homogeneous groups based on certain common characteristics. For the this analysis, we first selected the common characteristics that guide the classification of family functioning. Following the Circumplex Model (Olson, 2000), families can be classified as balanced or unbalanced, according to the central dimensions of their functioning: cohesion, flexibility, communication and satisfaction.

Ward's hierarchical method (with squared Euclidean distance criteria) was used as the analytical procedure for the clusters, aiming to establish appropriate initial values for the k-means classification. From a range of 2 to 6, the solution chosen followed the criteria of the smallest number of clusters, associated with the largest increase in explained variance (measured by changes in R2). Finally, using the non-hierarchical method, k-means clustering was used to compare groups with the same variance. To explore possible associations between the different adjustment groups and socio-demographic characteristics, the chi-square statistic was used, with the adjusted standardized residuals procedure (z-score above $|+1.96|$ equals $p < 0.05$). Finally, a one-way analysis of variance (ANOVA-One Way) was performed in order to assess whether there were differences in the levels of the different clusters (low, moderate, and high) in relation to prejudice, perception of social support, and levels of autonomy of the participants. Data normality was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests, and to correct for deviations from normality of the sample distribution and differences between cluster sizes, bootstrapping procedures were performed (1000 resamples; 95% CI BCa). The assumption of homogeneity of variance was evaluated using Levene's test. Considering the homogeneity of variance, post-hoc evaluation was requested using Hochberg's technique.

Ethical Considerations

This research followed the ethical aspects provided for in Resolution 466/2012 of the National Health Council and, as such, received approval from the Ethics Committee of the Universidade de Fortaleza, CAAE No. 65437616.6.0000.5052 (Opinion No: 1.994.360).

Results

Identification and characterization of family functioning clusters

The cluster analysis performed with the dimensions of family functioning (Cohesion, Flexibility, Communication, and Satisfaction) indicated three distinct profiles (clusters) of people with disabilities (low, moderate, and high). As presented in Table 1, Cluster 1, categorized as Low Family Functioning ($n = 45$; 22%), presented the lowest scores for cohesion, flexibility, communication, and satisfaction, revealing that in this group participants would be more likely to present lower family functionality. Cluster 2, in turn, was classified as Moderate Family Functioning ($n = 114$; 55.6%), since it shared the median scores of the variables. In other words, this family typology is likely to show adequate family functioning, with satisfactory management of cohesion and flexibility. Finally, Cluster 3, was classified as High Family Functioning ($n = 46$; 22.4%), since it shared the highest levels of cohesion, flexibility, communication, and satisfaction.

Table 1

Family functioning clusters

Clusters	Low n = 45	Average n = 114	High n = 46	F (2.202)
Cohesion (1-5) $M(SD)$	3.02[c]	3.83[b]	4.40[a]	105.16***
Flexibility (1-5) $M(SD)$	2.89[c]	3.6[b]	4.25[a]	65.60***
Communication (1-5) $M(SD)$	2.81[c]	3.65[b]	4.31[a]	135.48***
Satisfaction (1-5) $M(SD)$	2.46[c]	3.28[b]	4.12[a]	112.58***

Note. M = Mean; SD = Standard Deviation; Mean of variables based on score - *z;* Different letters represent inter-cluster differences based on ANOVA ($p < 0.001$), in which a < b < c < d. ***$p < 0.001$.

Family functioning clusters and socio-demographic characteristics

The chi-square test was performed in order to investigate whether there was an association between the different family functioning profiles (Low, Moderate, and High) and the socio-demographic data (Table 2). A significant association was found only in relation to education [χ^2 (4) = 11.236; p = 0.02]. Analyses of the adjusted standardized residuals showed that only the Moderate and High profiles were significantly associated with the schooling classification. People with disabilities in the High family functioning group were 4.41 times more likely to have the highest schooling (undergraduate and graduate) compared to people in the Moderate family functioning group. No significant differences were found with regard to age [χ^2 (4) = 1.799; p = 0.784], to sex [χ^2 (2) = 2.358; p = 0.295], to marital status [χ^2 (4) = 8.161; p = 0.221], to children [χ^2 (2) = 0.781; p = 0.684], to work [χ^2 (4) = 1.822; p = 0.786], to receiving benefits [χ^2 (2) = 3.263; p = 0.210] and to religion [χ^2 (2) = 1.879; p = 0.431].

Table 2

Percentages of socio-demographic characteristics for the different family functioning profiles (clusters)

Variables	Low (n = 45)	Moderate (n = 114)	High (n = 46)	χ^2
Gender	(n)	(n)	(n)	
Male	17	50	25	
Female	27	63	21	2.358
Age				
18-35	23	51	22	
36-60	21	59	21	1.799
60	1	4	3	
Education				
Below HS	10	41	7	
Adjusted residuals	-0.9	2.7*	-2.3*	11.236*
Complete HS	16	45	18	
Adjusted residuals	-0.4	0.2	0.1	
Above Undergraduate	18	28	21	
Adjusted residuals	1.3	-2.8*	2.1*	
Marital Status				
Single	28	58	22	
Married	12	48	21	8.161
Separated/Divorc.	5	5	3	
Children				
No	26	59	23	0.781
Yes	18	52	23	
Work				
No	11	34	16	1.822
Yes	33	80	30	
Religion				
No	5	7	2	1.879
Yes	37	101	41	
Benefits				
No	37	82	33	3.263
Yes	6	30	13	

Note. HS = High School; n = number of cases; *$p < 0.05$; Only the values of the adjusted residuals were placed on the variable with $p < 0.05$.

Family functioning clusters in relation to perceived social support, autonomy and prejudice

The ANOVA results showed that there were differences between the family functioning profiles (low, moderate and high) and the following groups: social support friendships [$F(2, 199) = 6.036$, $p < 0.005$,], intimacy social support [$F(2, 199) = 8.570$, $p < 0.001$], family social support [$F(2, 199) = 34.318$, $p < 0.001$], social activities social support [$F(2, 199) = 3.837$, $p < 0.05$,] and prejudice [$F(2, 199) = 3.337$, $p < 0.05$]. There was no significant difference regarding the levels of autonomy [$F(2, 199) = 0.295$, $p > 0.05$].

As shown in Table 3, the Hochberg post-hoc test, interpreted by bootstrapping procedures, revealed that the participants of the three clusters (Low, Medium, and High) differed from each other, showing significant differences in the following aspects: the Low family functioning cluster, when compared to the Medium family functioning cluster showed the lowest levels of social support of intimacy, family, and social activities, but obtained the highest mean of prejudice. In turn, compared to the High functioning cluster, the Low functioning cluster showed the lowest levels of social support from friendships, social support from intimacy, family, and social activities. Finally, the Medium functioning cluster when compared to the High functioning cluster, showed the lowest levels of social support of friendships, intimacy, and family.

Table 3

Mean and standard deviation of the variables social support, degree of autonomy, prejudice for the different family functioning profiles (clusters)

Variables	Low $n = 45$ M (SD)	Average $n = 114$ M (SD)	High $n = 46$ M (SD)	F (2.199)
Friendship SS (1-5)	3.64 (0.75)[a]	3.83 (0.82)[a.b]	4.20 (0.79)[c]	6.036**
Intimacy SS(1-5)	2.97(0.82)[a]	3.44 (0.87)[b]	3.69 (0.76)[c]	8.57**
Family SS(1-5)	3.11 (0.93)[a]	3.83 (0.72)[b]	4.46 (0.68)[c]	34.318**
Social Act. SS(1-5)	2.51 (0.82)[a]	2.94 (0.85)[b.c]	2.88 (0.91)[b.c]	3.837*
Prejudice (1-5)	1.90 (0.72)[a]	1.62 (0.58)[b]	1.66 (0.67)[a.b.c]	3.337*
Autonomy	6.54 (8.49)[a.b.c]	6.14 (8.03)[a.b.c]	5.46 (8.48)[a.b.c]	0.205

Note. Different letters represent inter-cluster differences from bootstrapping results (95% CI Bca); *$p < 0.05$; **$p < 0.001$; M = Mean; SD = Standart deviation.

Discussion

The objective of this study was to identify the existence of family functioning profiles (clusters) among the participants and compare them regarding sociodemographic characteristics, social support, level of autonomy, and prejudice. The existence of three profiles of family functioning was verified, considering cohesion, flexibility, communication and satisfaction as indicators of family adjustment, namely: Low, Medium and High. Taken together, the findings of this study demonstrated the existence of different profiles of family functioning, showing that the families of people with disabilities do not function in a homogeneous way, according to the interaction with sociodemographic aspects and with the levels of exposure to prejudice and the existence of the social support network.

It was verified that the Low Family Functioning group was formed by the participants who were more likely to present greater difficulties in family cohesion, flexibility, communication, and satisfaction. In this regard, studies on family resilience and disability show that poorly cohesive families, with impoverished emotional bonding among its members, may have difficulties in balancing closeness and commitment with tolerance towards separation and differences (Aguiar & Morais, 2021; Roque Hernández & Acle Tomasin, 2013).

The existence of a person with disability in the family can generate a lot of stress, especially when the family functioning is not very cohesive, making it difficult for its members to engage in mutual commitment to find more effective strategies to face the challenges experienced (Roque Hernández & Acle Tomasin, 2013). Moreover, the family's low capacity for cohesion and flexibility can be a determining factor in poor family functioning, making it difficult, for example, for family members to set boundaries, define clear roles, have open communication, and negotiate family decisions more openly and equally (Delgado-González, Palacio-Sheryz, Díaz-Reyes, Osaría-Quintana, & Forment-Poutou, 2020).

In families with people with disabilities, the overload of the members who exercise caregiving roles, notably the mother figure, has been one of the main factors of family stress, since there is a rigid division of gender roles and the functions are not shared equally by the couple. This overload, greatly influenced by gender inequality, may also reflect the difficulty of the family system to adapt to crisis situations, as well as to establish affective bonds and/or even to have bonds with other contexts that offer emotional support in times of stress (Tomaz, Santos, Silva de Avó, Germano, & Melo, 2017). In addition, some studies point out the influences that disability has on family functioning, such as maternal stress, depression, and low cohesion (Pinto et al., 2016). These data highlight the importance of functional family functioning and the need to prepare family members to ensure greater satisfaction among the people who make up the family system.

Still in relation to the low family functioning group, it showed the lowest levels of social support of friendships, intimacy, family and social activities, as well as the highest average of prejudice. Dysfunctional family functioning, with low cohesion, flexibility, and communication, can hinder the family's access to support networks and, thus, make them overburden themselves even more in the care of people with

disabilities (Delgado-González et al., 2020). Faced with the precariousness of the social support network, the family may not perform protective functions for people with disabilities and generate even more stress for other family members, especially the caregivers. It is noteworthy, however, that the expansion of the social support network has been an important protective factor in reducing parental overload and stress, since by feeling supported, the family members may feel stronger to deal with adversities (Delgado-González et al., 2020).

Regarding the high levels of prejudice in the group with low family functioning, it is understood that the prejudice suffered by people with disabilities can bring challenges to the healthy functioning of the family, hindering the capacity for communication and flexibility. Despite the advances in relation to laws and rights, people with disabilities continue to experience indifference, invisibility, and underestimation by different types of people and in the most diverse spaces, leading to several embarrassing situations (Fernandes & Denari, 2017). The body with impairments tends to be stigmatized by hegemonic norms that privilege the experience of non-disability. Given its centrality, the existence (or not) of prejudice starts to mediate the relationship between the person with disability, his/her family, and society, and may be an indicator of good or bad family functioning.

In turn, the participants of this research also composed the groups of moderate and high family functioning, with moderate to high levels of cohesion, flexibility, communication and satisfaction. It can be inferred that, in spite of the existence of disability, which can generate stress for both the person with disability and his family, in family groups in which there is an affective connection between its members, with good cohesion and efficient communication skills, it is possible to verify the positive development of its members (Delgado-González et al., 2020).

Regarding the levels of cohesion, it is worth mentioning that family relationships at both extremes of cohesion (clustered and disconnected) may present risk to the developmental processes of the person with disability. Families with extremely low levels of cohesion (disconnected families) may have deficit bonds and low commitment to the development of their members; whereas families with very high levels of cohesion (clustered families) may also hinder the processes of individuation and autonomy (Olson, 2000). In the latter case, this happens due to impoverished perceptions about the productive capacities of people with disabilities, their autonomy and their ability to negotiate.

On the other hand, in a healthy family system, there are rules and standards that will serve as a guide for the group and individual growth of its members. Thus, one of the most important characteristics of a well-functioning family is flexibility, which refers to the ability to change according to the needs. Although there are roles that are established by the family members themselves, these sometimes change due to possible phenomena in the family structure or outside it, as is the case of the disability of one of its members. Disability can bring several new situations, including stress

for its members, however, flexibility characteristics can also be perceived, for role changes, in order to meet the needs of people with disabilities (Aguiar & Morais, 2021). According to Olson (2000), the balance between structure and flexibility favors the proper functioning of the family system and collaborates to the processes of adaptation to changes and crisis situations. A flexible family system is crucial for the reorganization of roles and strategies for adaptation in challenging situations, as in the case of disability.

The need for family flexibility, openness and availability of its members to play different roles, according to the needs of the family group, is highlighted. For example, as it happens when one of the members of a family presents a disability, even though the most common is that a family member ends up overloading himself as the main caregiver; the ideal is that different people from the family are involved in the care (Vasconcellos & Ribeiro, 2010).

In the family with people with disabilities, cohesive, flexible relationships with good communication are the basis that supports the scaffolding of good family functioning and that provides family satisfaction, development of autonomy and growth of its members; besides treading an inclusive and protective path. In this study, for example, the high family functioning group was made up predominantly of people with disabilities who have undergraduate and graduate education. This data shows that if the family system acts facing the disability of one of its members with a good family functioning, it can contribute to the family's transforming potential, by not focusing on the disability and will start looking at the person, developing his/her potential (Santana Valencia, 2019).

Furthermore, when the family relies on a social support network (extended family, friends, social activities), family stress can be minimized. The greater the support received, the more people with disabilities will have possibilities of individual growth, as well as of helping other people in similar conditions. Following this logic, social supports are therefore of great importance in helping people with disabilities to continue touching their lives, including being flexible, in the face of the new reality they face (Spinazola, Cia, Azevedo, & Gualda, 2018). Even if the importance of family functioning as an important resource for the development of people with disabilities is recognized, it is also important to consider that the family is not solely responsible for this care.

In addition to the family functioning, it is essential that responses at the macro-systemic level be offered, through public policies that subsidize families in ensuring services to all members. For the family to become the reference of the person with disability, it also needs to feel safe, with support, trust, and dignity, aspects that will help it face reality. Furthermore, it needs appropriate support programs to maximize its own capabilities, with preventive and therapeutic actions that provide the incentive to improve the quality of life of the family and of the person with disability.

It must be considered that the future of a person with disability depends to a great extent on the way in which the family organizes itself and copes with disability.

Thus, both family functioning and the family support network will make all the difference in the lives of people who are born with or acquire a disability and who will try to carry on with their lives despite the obstacles they face. Moreover, belonging to a family with dysfunctional family functioning may increase the risk of maladaptive development, due to the inability to provide resources that facilitate the development of its members.

As limitations of the research, the impossibility of generalizing its results is indicated, especially because it is not a representative and random sample of the population of people with disabilities in Brazil. The data produced here needs to be interpreted based on the specific group of participants it managed to reach that is, people with disabilities, residents of a single capital city in the Northeast of Brazil, with individual and family income above the national average. Thus, future studies could investigate disability in its interface with issues of social class, gender, race and age group; as well as investigate the relationship of family functioning with other variables such as stressful life events, violence and psychological well-being indicators, for example.

References

Aguiar, M. P. P. A., & Morais, N. A. (2021). Processos de resiliência familiar vivenciados por famílias com uma pessoa com deficiência [Family resilience processes experienced by families with a disabled person]. *Revista Subjetividades, 21*(3), e9191. doi:10.5020/23590777.rs.v21i3.e9191

Allen-Leigh, B., Katz, G., Rangel-Eudave, G., & Lazcano-Ponce, E. (2008). View of Mexican family members on the autonomy of adolescents and adults with intellectual disability. *Salud Pública de México, 50*(Suppl. 2), s213-s221. doi:10.1590/s0036-36342008000800015

Allport, G. W. (1979). *The nature of prejudice: Unabridged: 25th anniversary edition*. Reading, MA: Addison-Wesley.

Cunha, A. C. C. P. (2021). Deficiência como expressão da questão social [Disability as an expression of the social issues]. *Serviço Social & Sociedade,* (141), 303-321. doi:10.1590/0101-6628.251

Delgado-González, O., Palacio-Sheryz, M., Díaz-Reyes, E., Osaría-Quintana, R. M., & Forment-Poutou, S. (2020). Salud familiar en niños con discapacidad intelectual [Family health in children with intellectual disabilities]. *Revista Información Científica, 99*(1), 30-37. Retrieved from http://www.revinfcientifica.sld.cu/index.php/ric/article/view/2767

Dell´Aglio, D. D., Koller, S. H., Cerqueira-Santos, E., & Colaço, V. F. R. (2011). Revisando o Questionário da Juventude Brasileira: Uma nova proposta [Revising the Brazilian Youth Questionnaire: A new proposal]. In D. D. Dell´Aglio & S. H. Koller (Orgs.), Adolescência e juventude: Vulnerabilidade e contextos de proteção [Adolescence and youth: Vulnerability and protection contexts] (pp. 259-270). São Paulo, SP: Casa do Psicólogo.

Dilleggi, E. S., Rosa, A. P., & Santos, P. L. (2019). Family functioning and environmental resources offered by families of children with mental disorders. *Salud Mental, 42*(5), 235-242. doi:10.17711/sm.0185-3325.2019.030

Fernandes, A. P. C. S., & Denari, F. E. (2017). Pessoa com deficiência: Estigma e identidade [Person with a disability: Stigma and identity]. *Revista da FAEEBA*: *Educação e Contemporaneidade, 26*(50), 77-89. doi:10.21879/faeeba2358-0194.v26.n50.7789

Gouveia-Pereira, M., Gomes, H., Miranda, M. P., & Candeias, M. J. (2020). Coesão e flexibilidade familiar: Validação do pacote FACES IV junto de adolescentes portugueses [Family cohesion and flexibility: Validation of the FACES IV package with Portuguese adolescentes]. *Análise Psicológica, 38*(1), 111-126. doi:10.14417/ap.1651

Jacob, J., Canchola, J. A., & Preston, P. (2019). Young adult children of parents with disabilities: Self-esteem, stigma, and overall experience. *Stigma and Health, 4*(3), 310-319. doi:10.1037/sah0000145

Lei No. 13.146, de 6 de julho de 2015. (2015, 7 de julho). Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência (Estatuto da Pessoa com Deficiência) [Establishes the Brazilian Law of Inclusion of Persons with Disabilities (Statute of Persons with Disabilities)]. *Diário Oficial da União, seção 1*. Retrieved from https://www2.camara.leg.br/legin/fed/lei/2015/lei-13146-6-julho-2015-781174-publicacaooriginal-147468-pl.html

Marôco, J. P., Campos, J. A. D. B., Vinagre, M. G., & Pais-Ribeiro, J. L. (2014). Adaptação transcultural Brasil-Portugal da escala de satisfação com o suporte social para estudantes do ensino superior [Brazil-Portugal transcultural adaptation of the social support satisfaction scale for college students]. *Psicologia: Reflexão e Crítica, 27*(2), 247-256. doi:10.1590/1678-7153.201427205

Neri, M. C. (2017). Cotas empregatícias, paralimpíadas e diversidade na inclusão das pessoas com deficiência na cidade do Rio de Janeiro [Employment quotas, paralympics and diversity in the inclusion of people with disabilities in the city of Rio de Janeiro]. *Inclusão Social, 10*(2), 55-76. Retrieved from http://revista.ibict.br/inclusao/article/view/4032

Olkin, R., Abrams, K., Preston, P., & Kirshbaum, M. (2006). Comparison of parents with and without disabilities raising teens: Information from the NHIS and two national surveys. *Rehabilitation Psychology, 51*(1), 43-49. doi:10.1037/0090-5550.51.1.43

Olson, D. H. (2000). Circumplex model of marital & family systems. *Journal of Family Therapy, 22*(2), 144-167. doi:10.1111/1467-6427.00144

Pinto, R. N. M., Torquato, I. M. B., Collet, N., Reichert, A. P. S., Souza Neto, V. L., & Saraiva, A. M. (2016). Infantile autism: Impact of diagnosis and repercussions in family relationships. *Revista Gaúcha de Enfermagem, 37*(3), e61572. doi:10.1590/1983-1447.2016.03.61572

Renzaho, A., Mellor, D., McCabe, M., & Powell, M. (2013). Family functioning, parental psychological distress and child behaviours: Evidence from the Victorian child health and wellbeing study. *Australian Psychologist, 48*(3), 217-225. doi:10.1111/j.1742-9544.2011.00059.x

Roque Hernández, M. P. R., & Acle Tomasin, G. (2013). Resiliencia materna, funcionamiento familiar y discapacidad intelectual de los hijos em um contexto marginado [Maternal resilience, familiar functioning and children with intellectual disability in a marginal context]. *Universitas Psychologica, 12*(3), 811-820. doi:10.11144/Javeriana.UPSY12-3. rmff

Santana Valencia, E. V. (2019). La construcción de la resiliencia familiar en la experiencia de la discapacidad: Una posibilidad para generar procesos inclusivos [The construction of family resilience in the experience of disability: A possibility to generate inclusive processes]. *Sinéctica,* (53), 1-23. doi:10.31391/s2007-7033(2019)0053-012

Santos, P. L., Bazon, M. R., & Carvalho, A. M. P. (2017). Family Adaptability and Cohesion Evaluation Scale IV (FACES IV): Adaptação brasileira [Family Adaptability and Cohesion Evaluation Scale IV (FACES IV): Brazilian adaptation]. *Avaliação Psicológica, 16*(2), 120-127. doi:10.15689/AP.2017.1602.01

Spinazola, C. C., Cia, F., Azevedo, T. L., & Gualda, D. S. (2018). Children with physical disability, down syndrome and autism: Comparison of family characteristics in the maternal perspective in brazilian reality. *Revista Brasileira de Educação Especial, 24*(2), 199-216. doi:10.1590/s1413-65382418000200004

Tomaz, R. V. V., Santos, V. A., Silva de Avó, L. R., Germano, C. M. R., & Melo, D. G. (2017). Impacto da deficiência intelectual moderada na dinâmica e na qualidade de vida familiar: Um estudo clínico-qualitativo [Impact of moderate intellectual disability on the dynamics and quality of family life: A qualitative clinical study]. *Cadernos de Saúde Pública, 33*(11), e00096016. doi:10.1590/0102-311X00096016

Vasconcellos, A. C., & Ribeiro, M. A. (2010). *Resiliência: Um estudo sobre famílias com portadores de paraplegia* [Resilience: A study of families with paraplegia]. Curitiba, PR: Juruá.

Vasconcelos, F. M., & Wellichan, D. S. P. (2022). O trabalhador com deficiência: Considerações sobre o cenário nacional e internacional [The disabled worker: Considerations about the national and international scenario]. *Brazilian Journal of Development, 8*(4), 31814-31830. doi:10.34117/bjdv8n4-594

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