



Resilience Potential of Autistic Children's Parents and Its Relationship to Family Functioning and Acceptance of Disability

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Authors' contributions

This work was carried out in collaboration between all authors. Authors ACRA and GAT design the study, wrote the protocol, managed the literature search and wrote the first draft. Author GOV performed the statistical analysis. All authors managed the analyses of the study, read and approved the final manuscript.

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ABSTRACT

Resilience, understood here as the way that parents cope with the vulnerability situation of having a child with Autism Spectrum Disorders (ASD), gains importance when experiencing negativity in the family, school and social settings. The purpose of this study is to inquire into the relationship between resilience potential factors of parents of children with ASD, and disability acceptance and family functioning. This is a descriptive, non-experimental, cross-sectional, and correlational study. Eighty primary caregivers were administered a Resilience Potential Scale, a Family Functioning Scale, and a Semantic Differential Scale. One of the main findings from this study was the coexistence of risk and protective factors when facing this situation. When parents give meaning to their lives and can seek help to solve problems inherent to having a child with ASD, the family's

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emotional bond is strengthened. However, when they display distress, anguish, or concern over this event, little tolerance and rule inconsistency within the family become present. This indicates poor adaptability to having a child with ASD -hopelessness is a sign associated with non-acceptance of disability. Yet parents' self-determination and the affliction caused by having a child with ASD help maintain adequate family functioning and seek external support.

Keywords: Autism spectrum disorders; resilience potential; family functioning; acceptance of disability; risk and protective factors.

1. INTRODUCTION

When a child with ASD is born to a family, parents strive to make positive meaning from this experience, but the reality is that caring for this child can be emotionally, financially, and personally challenging [1,2,3,4,5]. Parents' response will depend on multiple factors such as personality traits, mood, level of education, culture, or seriousness of the child's diagnosis and prognosis [6,7,8,9,10]. Many needs of children with disabilities find a response in parental needs. Parents should know how to cope with and identify the help they need in each situation, as well as how to get information about how to raise a child with disability, since families are often alone in solving the situation [11,12,10]. It can be said that parents need to cope with adversity through resilient behaviors, resilience is not a fixed attribute or trait, nor is it constant or practiced permanently or under every circumstance [13]; one is not born with it nor does one acquire it during development. Resilience is an interactive process between people and their environment in the face of adversity [14]. This process is useful when better resources to face adversity are available, hence the importance of training and identifying resources for every parent so they can cope with their child's disability.

In the DSM-5 [15] the ASD is classified by two symptom dimensions, one concerning to the disorders in the social communication/interaction and the other one as the presence of repetitive patterns of behavior, interests and activities. That is why children with ASD can display some of the following characteristics: A) In the social-communicative/interaction dimension they can show: deficits in the social and emotional interaction, deficits in the pragmatic language that can be present in the verbal or in the non-verbal communication, a lack of facial gestures and deficits in the development and maintenance of relationships. They can show difficulties in maintaining appropriate behaviors in play situations with their peers or they don't show any

interest in others. B) Regarding the restricted and repetitive behaviors, children can exhibit motor stereotypes; echolalia; verbal, nonverbal or motor rituals; little or no interest in what happens around them and can display an exaggerated reaction to the sensory stimuli or no one at all. At the starting point of the diagnosis, the past and current behaviors must be considered as well as the level of severity of the behaviors concerning these two symptom dimensions.

Worth noting are the studies focused on mother involvement in early autistic children intervention programs, such as Flippin and Crais's [16], on the importance of mothers being educated about their children's disabilities [17,18]; on raising awareness of the parental need for information and counseling upon autism diagnosis [19,20]; on stress and mental health of autistic children's parents [2,21,22,23]. Regarding resilience, Albarracin, Rey and Jaimes [24], Levine [25], and Oh and Chang [26] have conducted studies that identify family resilience factors, stress, confrontation, family adaptation, and sociodemographic characteristics in parents of children with ASD.

1.1 Resilience and Disability

With respect to resilience in research, there are multiple definitions, approaches, methodologies, and study designs, which do not make it easy to address. The most relevant highlight of conducted research is that resilience provides an individual, a family, a school or a society with resources and competences, with which adversity can be faced and vulnerability conditions withstood favorably or less [27], and that different environments in which individuals live will provide elements to build it. One of the most commonly used definitions of resilience refers to the ability to adapt, to recover, and to access a meaningful and productive life by coping successfully after stressful events [13].

Many studies have pinpointed personal resilient factors such as self-esteem, positive interactions,

assertiveness, altruism, flexible thinking, creativity, emotional self-control, independence, confidence, self-efficacy belief, optimism, initiative, morality, and sense of humor, which can be promoted to help build resilient behaviors [28]. Moreover, Oh and Chang [26] identified six factors related to family resilience: collective confidence, interconnectedness, positive life view, resourcefulness, open communication patterns, and collaborative problem-solving; they found that resilient families perceive a sense of disequilibrium, share spiritual or religious beliefs, and show a strong will to overcome adversities. These resources may be taught or learned, so it is important to identify which collective and personal resources parents possess and which they can be taught to build resilience.

Regarding research on resilience in association with ASD, a study by Albarracin, Rey and Jaimes [24], which revolved around stress, coping, and sociodemographic characteristics of parents, found that parents (mostly mothers) firstly utilize emotion-focused coping strategies, and then problem-focused coping strategies; the use of said strategies is deduced to reflect on lower levels of stress in parents, which allows them to identify the difficulties which they are facing when caring for the child and to seek help to improve their situation. This emotionally-driven search for social support allow parents to adapt to challenges of their environment and build resilience successfully in their caregiver roles, given they feel supported by the people in their lives, and thus stronger. Parents' role in the face of the problem, including parental cognitive regulatory resources, may function as a moderator of effects of stress [29]. As observed by Levine [25] regarding family adaptation for single mothers of children with autism, there is a marked contrast between public discourses about single motherhood. It was demonstrated that, contrary to public perceptions, single mothers of children with autism view their experiences as personally transformative and as a means of building confidence that empowers them. According to Luthar and Bidwell [30], it is critical to investigate which components promote interaction and resilience—the more variables are studied, the better understanding of the process. Thus, the importance of studying the relationship between resilience factors among parents of children with ASD and other setting components, since research that relates these to risk and protective factors for resilience within these families is lacking.

An increase in the number of people with disabilities has been observed in Mexico and around the world. However, this increase does not necessarily translate in an increase in care provided by government agencies to this population [31,32]. When health care is not available, Mexican parents turn to private institutions, most of which are founded by parents of children with disabilities themselves that have not been provided with appropriate governmental health care and the treatment they and their children need [33]. The purpose of this study can be inferred from the foregoing: to inquire into the relationship between resilience potential factors of parents of children with autism spectrum disorder (ASD), and acceptance of disability and family functioning.

1.2 Purpose of the Study

The purpose of this study can be inferred from the foregoing: to inquire into the relationship between resilience potential factors of parents of children with autism spectrum disorder (ASD), and acceptance of disability and family functioning.

1.3 Hypothesis of the Study

The hypothesis of this study is:

- Are there significant differences at the level of significance ($\alpha = 0.05$) between the resilience potential factors with gender, level of education of participants, center of sampling, whether the mother work or are a housewife, age and specific diagnosis of the child with ASD, whether the child is the only son or not, and whether the family unit are extended or not?
- Are there significant differences at the level of significance ($\alpha = 0.05$) between the family functioning and related factors with gender, level of education of participants, center of sampling, whether the mother work or are a housewife, age and specific diagnosis of the child with ASD, whether the child is the only son or not, and whether the family unit are extended or not?
- Are there significant differences at the level of significance ($\alpha = 0.05$) between the total scores of disability acceptance and its factors with gender, level of education of participants, center of sampling, whether the mother work or are a housewife, age

and specific diagnosis of the child with ASD, whether the child is the only son or not, and whether the family unit are extended or not?

1.4 Importance of the Study

This work represents an opportunity to know the levels of resilient potential that parents must have to face the adversity that can be the disability of his child as well to be aware of the family functioning and their level of acceptance of the children's ASD behaviors. This knowledge can be a valuable rationale to implement interventions; the analysis of the interaction between the risk and protective factors can be used to promote resilient strategies for parents and siblings of children with ASD to get a better wellbeing not only for the child but also for the family and enhance them to get an effective and successful social adaptation.

1.5 Terminology of the Study

Resilience potential: It means the capacity that every individual possesses to be able to face any adversity situation, it is the result of the interaction of positive and negative aspects of their personality and social interaction [34]. Operationally, the level of scores obtained in the different factors of the Resilience Potential Scale [35].

Acceptance of disability: The recognition, understanding and acceptance that are faced by parents of children with disabilities [36]. Operationally, the level of scores obtained in the different factors of the Semantic Differential Scale for parents of children with disability [37].

Family functioning: A set of patterns of relationships that occur between the family members throughout their life cycle, patterns that play through established roles and the influence of social environments in which they develop. Valued through the family environment, hostility / avoidance of conflict, command / problems in the

expression of feelings and cohesion / rules [38]. Operationally, the level of scores obtained in the different factors of the Family Functioning Scale [39].

1.6 Limitation and Delimitation of the Study

The delimitation of the study consisted of: Parents and Mothers of children with ASD who live in Mexico City and are attending only to private services for them as parents.

The limitations of the study included: To get the authorization of more public and private institutions responsible for the care of children with ASD to contact a larger number of participants.

2. METHODS

2.1 Design

A descriptive, non-experimental, cross-sectional, and correlational study design was utilized.

2.1.1 Participants

A nonprobability, purposive sampling technique was used to select parents with children diagnosed with ASD.

Eighty primary caregivers participated: 16 fathers, 58 mothers, 4 grandmothers and 2 aunts. Female caregivers ranged in age from 23 to 60 years ($M_{age}=38.98$; $SD=8.97$), while male caregivers, from 27 to 53 years ($M_{age}=38.31$; $SD=6.53$). Level of education is shown in Table 1.

Children with ASD were treated in private care centers. Table 2 shows diagnosis as given to parents.

Diagnosis by children's age group is shown in Table 3.

Table 1. Level of education of the sample

Level of education	Female percentage	Male percentage	Total percentage
Primary school	1.7%	6.2%	2.7%
Middle school	22.0%	18.8%	21.3%
High school / Technical school	22.0%	37.5%	25.3%
Undergraduate school	44.1%	37.5%	42.7%
Graduate school	10.2%	0.0%	8.0%
Total	100%	100%	100%

Table 2. Diagnosis in children by primary caregivers' age group

Parents' age group	Autism	Asperger	Developmental disability
23-29 years	11	1	1
30-39 years	18	6	2
40-49 years	15	12	0
50-60 years	4	2	1
Total	44	21	4

Table 3. Diagnosis by age group

Children's age group	Categorization by children's diagnosis			Total
	Autism	Asperger	Developmental disability	
Preschool. 1-5 years 11 months	21	0	2	23
School. 6 years 0 months-11 years 11 months	22	15	1	38
Adolescence. 12 years 0 months-17 years 11 months	5	6	0	11
Adults. 18 years 0 months	3	1	1	5
Total	51	22	4	77

It is worth noting that most children attend school, in addition to attend to private centers for counseling and different types of treatment (Table 4).

Table 4. Type of school that children with ASD attend

Type of school	Frequency
Regular	33
Special	20
Individual	2
Regular and special	7
Special and individual	1
Not applicable	2
None	6
Total	71

Sixty-seven-point five percent of children lived with their nuclear family and 32.5% with extended family. Seventy-point one percent had siblings and 29.9% were only children.

2.1.2 Instruments

1. Resilience Potential Scale [35], a self-report Likert-type instrument comprised by 33 items with a 6-point response format ranging from 1: totally disagree, to 6: totally agree. It assesses the ability of participants to face adversity originated from the interrelation between both positive and negative aspects of personality and social interactions across seven factors: Evasion, Self-Determination, Affliction, Control, Affiliation, Overgeneralization, and Well-being. The total scale explained 52.06% of

variance with a global Cronbach's alpha of 0.681.

2. Family Functioning Scale [39], a self-report instrument comprised by 22 items that explained 51% of total variance, with a Cronbach's alpha of 0.89, includes 4 factors: Positive Family Environment, Hostility/Conflict Avoidance, Authority/Trouble Expressing Emotions, and Consistency/Rules.
3. Semantic Differential Scale for parents of children with disability [37], an instrument comprised by a series of 30 bipolar adjective pairs related to disability that are used to define children with characteristics thereof, to which mothers react by assigning an adjective from each pair based on the following question: "What effect does a child with disability have on me?" This differential has four response categories: totally, considerably, slightly, and somewhat. A paper-and-pencil instrument, it may be administered individually or in group. It was validated by professional evaluators in the field, reaching 95% of agreement. As proposed by Osgood, Suci, and Tannaenbaum [40], this semantic differential included 4 factors: Concern/Unconcern, Joy/Sadness, Hope/Hopelessness, and Acceptance/Non-Acceptance. A global Cronbach's alpha of 0.929 was obtained.
4. Parents of Children with Autism Semi-Structured Interview Guide [41], constituted by 80 items organized in four

areas: a) Socio-demographic data (16); b) Knowledge of the Disability (32); c) Family Functioning (21); and d) Community Characteristics (11). This guide was validated by professionals related to special education, reaching 95% of agreement.

2.1.3 Procedure

Requirements were met in all five private centers where children with ASD are provided services. Parents were invited to participate through a briefing by e-mail or telephone, or in person. This invitation was based on the way every institution operates. Before administration, they were given an individual informed consent form for participation, which they read and signed after being orally briefed on the study. During administration of instruments, an emphasis was made on confidentiality of data, respondent anonymity, and the science-promotion purposes of collection.

2.1.4 Data analysis

Data were analyzed through the SPSS software, version 21, which allowed for the identification of descriptive data, and normality tests. Based on skewness and kurtosis tests, and a Kolmogorov-Smirnov test, the use of nonparametric statistics was determined. Differences in results were analyzed by the Mann-Whitney U test, as well as a unifactorial analysis of variance by Kruskal-Wallis test ranks. Finally, a correlation analysis using Spearman rank-order correlation coefficient, and a multiple linear regression were conducted.

3. RESULTS

With the purpose of analyzing general variable behavior in the studied sample, descriptive statistics relative to resilience potential, family functioning and disability acceptance factors are shown first.

It is important to point out, as Luthar and Bidwell [30] have noted, that resilience research is challenging. Resilience is a dynamic, complex construct, which can be difficult to measure directly. However, it can be studied based on measurement of some components, without necessarily making a summative assessment. Consequently, this study focuses on a resilient factor analysis: evasion, self-determination, control, affiliation, overgeneralization, and well-being. By describing these factors, evasion,

affliction, overgeneralization, and well-being were found to be normally distributed across the sample, while self-determination, control, and affiliation were not, given the response variability (Table 5).

Regarding self-determination, most parents showed great ability to resignify adversity conditions, adapt to change and give meaning to life. For control, most parents are believed to be skilled and capable of taking care of their children with disability. Moreover, parents showed high affiliation; most believe they possess great abilities to establish support networks, probably because their children get specialized care, which also promotes social networking in care centers. This is of the utmost importance, since it overlaps with findings from studies by Albarracin, Rey and Jaimes [24], and Doron and Sharabay [42], which emphasize the importance of social support for parents' mental health and the need to use emotion-centered strategies.

In respect of family functioning and its factors, a normal distribution was observed across family functioning and the authority/trouble expressing emotions and consistency/rules factors, while responses were not normally distributed for positive family environment and hostility/conflict avoidance factors (Table 6). That is, the positive family environment showed that most families perceive satisfaction with manifestations of love and affection among family members. With respect to hostility/conflict avoidance, indicators did not show any patterns of hostile/avoiding relationships in these families. Regarding rule consistency, there were indicators of unity and agreement from the parental couple in relation to their children; this component is transcendental for their marital relationship [42, 43,7].

With respect to acceptance of disability, the hope/hopelessness and acceptance/non-acceptance factors did not distribute normally (Table 7); that is, some parents in the sample had more feelings of hope than feelings of hopelessness regarding their children's disabilities. Moreover, most of them were accepting of the disability.

Based on the differences found in the distribution of resilience potential factors across the sample, and since populations did not show the normality expected based on their skewness and kurtosis score of different variables and related factors, nonparametric inferential statistical analyses were carried out [44]. A Kolmogorov-Smirnov test

confirmed the foregoing. Risk [45], and Rodriguez and Ruiz [46] point out that there are two ways to handle data when it is not normally distributed. The first one is to perform nonparametric analyses, or modify variables to obtain normal distributions. The second option is more complicated because it depends on the sign of skew. Thus, nonparametric statistics was used and data purity maintained, since transformation of the studied variables required different procedures as some of them were positively skewed and other negatively skewed.

Table 5. Descriptive data related to factors of the resilience potential variable

	Mean	Standard deviation	Minimum	Maximum	Skewness	Kurtosis
Factors						
Evasion	28.66	4.46	17.00	36.00	-.407	-.354
Self-determination	26.32	3.30	17.00	30.00	-.921	.089
Affliction	23.27	6.84	10.00	36.00	.041	-1.015
Control	25.65	3.68	16.00	30.00	-.595	-.392
Affiliation	19.08	3.69	9.00	24.00	-.654	-.355
Overgeneralization	15.23	3.64	4.00	23.00	-.367	.177
Well-being	14.85	2.37	10.00	18.00	-.489	-.857

N=80

Table 6. Descriptive data of the family functioning variable

	Mean	Standard deviation	Minimum	Maximum	Skewness	Kurtosis
Total family functioning	135.91	11.40	95.00	171.00	-.244	2.06
Factors						
Positive family environment	63.20	10.22	29.00	80.00	-.876	.682
Hostility/Conflict avoidance	25.45	6.37	14.00	44.00	.709	.168
Authority/Trouble expressing emotions	23.90	7.26	11.00	42.00	.423	-.323
Consistency/Rules	23.36	5.31	8.00	30.00	-.962	.204

Table 7. Descriptive data of the disability acceptance variable

	Mean	Standard deviation	Minimum	Maximum	Skewness	Kurtosis
Total: Disability Acceptance	87.32	10.801	66.00	117.00	.185	-.257
Concern/Unconcern	44.46	10.95	22.00	68.00	.062	-.769
Joy/Sadness	14.79	4.55	3.00	21.00	-.318	-.893
Hope/Hopelessness	17.85	8.20	7.00	39.00	.849	.138
Acceptance/Non-acceptance	10.23	4.81	5.00	29.00	1.58	3.07

N=80

Table 8. Mean of resilience potential factors and gender of parents

	Mother		Father	
	Mean	Standard deviation	Mean	Standard deviation
Evasion	29.14	4.43	26.75	4.18
Self-determination	26.50	3.30	25.62	3.30
Affliction	22.87	6.75	24.87	7.17
Control	25.90	3.63	24.62	3.81
Affiliation	19.59	3.43	17.06	4.09
Overgeneralization	15.12	3.55	15.68	4.09
Well-being	15.00	2.39	14.25	2.23

N= 80

Consequently, Mann-Whitney U test was used to know if there existed statistically significant differences among factors in relation to gender and level of education of participants, center of sampling, whether the mother worked or was a housewife, age and specific diagnosis of the child with ASD, whether the child was an only child or not, and whether the family unit was extended or not. Statistically significant differences were only found in relation to gender and the evasion ($z = -2.027$, $p = .043$) and affiliation ($z = -2.259$, $p = .024$) factors, as shown in Table 8. The foregoing demonstrates that mothers tend to divert attention from the disability situation of their children more often than fathers, as well as to ask for more support from others.

Additionally, in order to analyze statistically significant differences between resilience potential factors and parents' level of education, a comparison between independent samples was made based on the unifactorial analysis of variance by Kruskal-Wallis test ranks, where statistically significant differences were found in the well-being factor ($X^2 = 16.013$, $df = 3$, $p = .001$). To identify the differences, independent samples were compared by Mann-Whitney U test. As a result, differences between parents' level of education were found as follows: parents with basic education and parents with high school or technical education ($z = -2.94$, $p = .003$, adjusted $p = .009$); parents with high school or technical education and parents with undergraduate education ($z = -3.11$, $p = .002$, adjusted $p = .006$); parents with high school or technical education and parents with graduate education ($z = -2.55$, $p = .011$, adjusted $p = .033$). In these three instances, parents with high school or technical education scored the highest on the well-being factor compared to the rest of parents, which means the latter feel more satisfied and at ease with themselves and the future compared to parents with higher levels of education (Table 9).

When analyzing data to know if there existed statistically significant differences between family functioning and related factors in relation to gender and level of education of participants, center of sampling, whether the mother worked or was a housewife, age and specific diagnosis of the child with ASD, whether the child was an only child or not, and whether the family unit was extended or not, statistically significant differences were only found in relation to parents' level of education and whether the family unit was extended or not. Independent samples were compared by a unifactorial analysis of variance by Kruskal-Wallis test ranks, and statistically significant differences between level of education and total family functioning were found ($X^2 = 9.883$, $df = 3$, $p = .020$). The Mann-Whitney U test was used to analyze the differences between parents with basic education and graduate education ($z = -2.70$, $p = .007$, adjusted $p = .021$); and parents with undergraduate and graduate education ($z = -2.50$, $p = .012$, adjusted $p = .036$). Parents with basic education and undergraduate education were found to show better family functioning (Table 9).

To know if there were statistically significant differences between family functioning and type of family unit, independent samples were compared by Mann-Whitney U test. Statistically significant differences were found in relation to the positive environment factor ($z = -2.412$, $p = .016$). Parents living in a nuclear family showed a better positive family environment.

The Mann-Whitney U test did not show any statistically significant differences between total scores of disability acceptance and its factors in relation to gender and level of education of participants, center of sampling, whether the mother worked or was a housewife, age and specific diagnosis of the child with ASD, whether the child was an only child or not, and whether family unit was extended or not.

Table 9. Differences related to parents' level of education

Level of education	Well-being factor. Resilience potential Scale	Total family functioning
Basic vs High school/Technical	$z = -2.94$; $p = .003$	
Basic vs Undergraduate		
Basic vs Graduate		$z = -2.70$; $p = .007$
High school/ Technical vs Undergraduate	$z = -3.11$; $p = .002$	
High school/Technical vs Graduate	$z = -2.55$; $p = .011$	
Undergraduate vs Graduate		$z = -2.50$; $p = .012$

Considering that the central purpose of this study is to analyze the relationship between resilience potential, and family functioning and disability acceptance factors, a correlation analysis using Spearman coefficient was conducted. Statistically significant correlations were found between resilience potential, disability acceptance and family functioning factors (Table 10).

Parents' resilience potential factors that have a positive, significant relation to family functioning factors are: a) evasion with positive family environment; b) self-determination with positive family environment and rule consistency; c) control with positive family environment and rule consistency; d) affiliation with positive family environment; e) well-being with positive family environment and rule consistency. In respect of the relationship between resilience potential factors and acceptance of disability, a) evasion was associated with joy and unconcern; b) self-determination with well-being; and c) affiliation with unconcern. Resilience potential factors—specially self-determination, affiliation, control, evasion, and well-being, which associated positively with positive family environment with rule consistency—are reflected as stated by García-Cortés [34] and Luthar and Bidwell [30], in the sense that they form protective factors in the face of the possible vulnerability situation of having a child with autism, which tends to modify family functioning.

However, significant associations were also found to be negative for resilience potential factors: evasion, self-determination, affiliation, control, affiliation, overgeneralization, and well-being in relation to family functioning factors of hostility/conflict avoidance and authority/trouble expressing emotions. In this sense, the evasion factor is negatively associated with hopelessness and non-acceptance of disability; overgeneralization is negatively associated with hopelessness and affiliation; and well-being is negatively associated with non-acceptance. These negative associations form risk factors for appropriate family functioning when parenting a child with autism. The coexistence of risk and protective factors reveals the complexity of the resilience construct [34,28,14].

Based on these data, it was important to study the possible relations between family functioning and its factors, and factors related to acceptance of disability, with a correlation analysis using Spearman coefficient (Table 11). Results show

that parents' family functioning factors associate significantly and positively with acceptance or non-acceptance of disability factors as follows: a) positive family environment with unconcern; b) hostility/conflict avoidance and authority/trouble expressing emotions with hopelessness and non-acceptance; and c) consistency/rules with unconcern and joy. Factors associated significantly but negatively are: a) positive family environment with hopelessness and non-acceptance; b) authority/trouble expressing emotions with unconcern and joy; c) consistency/rules with hopelessness and non-acceptance.

This results show the importance of a positive family environment with rule consistency to reduce parents' concern related to having a child with autism; otherwise, there will be hopelessness together with non-acceptance of disability in a hostile environment where there is trouble expressing emotions. It is worth noting that, additionally, a significant, positive correlation related to sociodemographic aspects was found between the unconcern factor and age of the child with ASD: the greater the age of the child, the stronger the parents' feelings of calm, openness, relief, and ease.

Said correlations helped visualize the importance of resilience potential factors—which can contribute to adequate family functioning when a child has autism—leading to a stepwise multiple linear regression. As shown in Table 12, the last step explained a greater variance and indicates that the lower the level of education, the higher self-determination and the lower affliction, can contribute to better family functioning when a child has autism.

Summing up, it can be pointed out that data obtained is revealing of the role resilience factors play when having a child with autism. The coexistence of risk and protective factors was observed when in the face of this adversity situation; the studied sample feels better when social support is available, and when parents give meaning to their lives and can seek support to solve problems; and when emotional bonds among family members who are concerned about a child's disability are encouraged, which constitutes a protective factor for the child with autism. Nevertheless, when there is distress, anguish, or concern, little tolerance and rule inconsistency within the family surface, as well as poor ability to adapt and face challenges inherent to this situation, resulting in a feeling of

Table 10. Correlations between resilience potential factors, and disability acceptance and family functioning factors

	Resilience potential factors						Well-being
	Evasion	Self-determination	Affliction	Control	Affiliation	Overgeneralization	
Total family functioning		.228*	-.268*				
Family functioning factors							
Positive family environment	.282*	.396**		.316**	.401**		.318**
Hostility/Conflict avoidance	-.481*	-.255*	-.420**	-.403**	-.361**	-.334**	-.416**
Authority/Trouble expressing emotions	-.441**	-.234*	-.414**	-.377**	-.290**	-.372**	-.419**
Consistency/rules		.326**		.270*			.287**
Disability acceptance factors							
Concern/ Unconcern	.251*	.239*			.243*		.309**
Joy/Sadness	.257*						
Hope/ Hopelessness	-.221*					-.237*	
Acceptance/Non-acceptance	-.274*				-.327**		-.242*

** $p < .01$, * $p < .05$ N= 80

Table 11. Correlations between family functioning and disability acceptance factors

	Family functioning factors				SV
	Positive family environment	Hostility/ conflict avoidance	Authority/trouble expressing emotions	Consistency/ rules	Group by the age of child with ASD
Acceptance of disability factors					
Unconcern	.285*		-.261*	.400**	.272*
Joy			-.229*	.294**	
Hopelessness	-.267*	.304**	.312**	-.399**	
Non-acceptance	-.351**	.348**	.339**	-.324**	

** $p < .01$, * $p < .05$ N= 80

Note: SV=Sociodemographic variable

Table 12. Stepwise multiple linear regression results

Step		Unstandardized coefficients		Standardized coefficients	Sig.	R ² _{aj}
		B	Std. error	Beta		
1	(Constant)	151.051	4.572		.000	.120
	Education	-4.371	1.329	-.364	.002	
2	(Constant)	128.878	10.361		.000	.174
	Education	-4.292	1.288	-.357	.001	
	Self-determination	.832	.351	.254	.021	
3	(Constant)	130.809	10.141		.000	.214
	Education	-3.307	1.337	-.275	.016	
	Self-determination	.990	.350	.302	.006	
	Affliction	-.402	.187	-.244	.035	

hopelessness and non-acceptance of children’s disabilities, which is a risk factor for the autistic child and family functioning itself. These data suggest the unfixed nature of resilience and how parents’ self-determination and affliction caused by having a child with ASD are aspects that help maintain adequate family functioning.

4. DISCUSSION

In this study, the role of resilience—understood as the way that parents face the possibly vulnerability situation of having a child with autism and not experiencing positivity in the family, school and social settings—gains importance. As pointed out by Luthar and Bidwell [30], resilience can be assessed through its components because it cannot be measured since it is not a fixed attribute or trait, nor is it constant or practiced permanently or under every circumstance or every stage of life. There are personal factors associated with resilience that help parents of children with autism face their children’s disability. It is worth noting that these factors are not only associated with personal strength or weakness, but also with the way that parents are affected by adverse stimuli and react to them, especially since children’s disability may put them in a situation of permanent adversity should they not prove able to find positivity to achieve adaptation, and school and social inclusion of children. Thus, the importance of analyzing the relationship between resilient factors for autistic children’s parents and family functioning and acceptance of disability.

In this sense, results obtained by this study characterize parents’ resilience potential. Mothers tend to divert attention from the disability situation of their children more often than fathers due to external factors, but at the same time they are the family members who establish

relationships with other parents to find help and face their children’s disability. However, resilience potential is not fixed, and this evasion might rather be seen as an strategy used as a protective factor because of the fact that mothers are required to daily care for their children [36], with the intent to be less affected by having a disabled child, given they are more capable of seeking support than fathers. This overlaps with findings by Giarelli, Souders, Pinto-Martin, Bloch and Levy [20], Doron and Sharabany [42], Crane, Chester, Goddard, Henry and Hill [19], who found that parents’ mental health is associated with social support and perceived satisfaction from it, as well as findings that mothers possess more emotion-centered coping strategies [24], which is reflected in the fact that mothers are more expressive than fathers in their responses. Seeking social support is a key element of coping, in resilience research [47].

In fact, the relationship between resilience potential factors and family functioning shows that the lower the level of education, the higher self-determination, the lower affliction and the better family functioning. These data have significant predictive value to be considered in intervention programs for parents of disabled children. This overlaps with a study by Martínez [48], which identified mothers’ self-determination as the main encouraging element for seeking help when their child is sexually abused; and a study by Garcia-Cortés [34] that highlights the role that family plays in coping with adversity for parents of children with alcohol abuse problems.

With respect to self-determination, most parents showed great ability to resignify adversity conditions, adapt to change and give meaning to life. Regarding other resilience potential components, particularly control, most parents believe to be skilled and capable enough to take

care of their disabled children. Moreover, parents showed high affiliation; most believe they possess great abilities to establish support networks, probably because they seek better, specialized care and education for their children, which also promotes social networking in care centers. This is of the utmost importance since it overlaps with findings from studies by Doron and Sharabay [42], and Navot, Jorgenson, Vander Stoep, Toth and Webb [5] that emphasize the importance of social support for parents' mental health.

Additionally, organization in a family with a disabled child depends on specific components such as level of affection among family members and roles played by each, which overlaps with findings by Pérez and Lorenzo [7]. In the studied sample, a positive family environment was marked when a family with a child with ASD lived as a nuclear family unit, since this allows its members to be more satisfied with relationships and promotes the exchange of ideas and points of view, profiting from good communication and closeness as a manifestation of affection among family members. These findings overlap with the family resilient factors reported in a study by Oh and Chang [26].

It was observed that when parents manage to adapt to everyday changes related to their autistic children and seek support to solve their problems, they perceive a feeling of ease about the future; maintain a better relationship with family members and optimally use the resources they should play their established role within the family; and report an exchange of ideas and manifestation of affection among members. This overlaps with studies by Ching [49], Ki and Joanne [43] that found that parents can manage their emotional problems to relieve stress when stimulated to show positive emotions to reduce the impact of having a child with autism. In contrast, if parents are upset or concerned by adversity, poor adaptation to change and difficulties in coping because of their children's disabilities are also observed.

As for the relationship between resilience potential factors and acceptance of disability, it was observed that when parents divert attention from their children's disability, they show feelings of joy and unconcern. Evasion is probably a protective factor that allows them to forget adversity for a moment, as explained above. Additionally, if they give a new meaning to their children's disability, they will envisage a positive

future and possess the ability to seek support and find reasons to cope with this vulnerability situation. However, evasion gives way to perceiving hopelessness and not accepting disability thoroughly, which overlaps with studies by Ching [49], Dellve, Samuelsson, Tallborn, Fasth and Hallberg [50], Masood, Turner and Baxter [51], and Pérez and Lorenzo [7].

The way a family functions will influence acceptance of disability. When there is closeness and emotional bonds, as well as limits established among family members, there will be unconcern and joy regarding ASD. But if there is little tolerance for family members' actions, followed by difficulties to express feelings and little consistency of rules and limits, parents experience hopelessness and difficulties to accept their children's disability.

Moreover, the relevance of two sociodemographic variables in the studied factors is observed. On the one hand, the role of schooling in the presence of the self-determination and affliction resilience potential factors was confirmed. This finding overlaps with findings by Barrientos [52], who interviewed mothers of adolescents with intellectual disabilities (ID) who reported to have accepted their children's disability and that they needed more counseling to face whatever the future may bring. Hagner, Kurtz, Cloutier, Arakelian, Brucker and May [53]; Mackintosh, Goin-Kochel and Myers [54], and Rea and Aclé [55] agree upon the fact that parents have many questions and do not feel prepared to face issues related specifically to their ASD children's transition from childhood to adolescence, and from adolescence to adult life. They seem worried about issues such as sexuality, independence and autonomy, professional placement and occupation; that is, they have already accepted their children's disability, but they are still in a vulnerable situation because they cannot find opportunities for their children's future.

5. CONCLUSION

The dynamism of the resilience construct can be observed in the fact that both risk and protective factors coexist in the face of adversity. In the case in question, this becomes clear as parents of children with ASD show self-determination, confidence, well-being, and affiliation, but they also exhibit affliction, overgeneralization, and evasion among their problems, which is understandable given counseling or care for their

children is not available. This all influences acceptance of disability and the feelings arising therefrom, as well as the way family functions internally. It is a given that parents need to face adversity with resilient behaviors [28]. Also, as stated by Zipper and Simeonsson [56], resilience is an interactive process between an individual and the environment in the face of vulnerability, thus the importance of identifying the resources of parents and coaching them so they can cope with their children's permanent disability and face the possible adverse situation of not finding a suitable response for their children's educational, professional and social needs.

6. RECOMMENDATIONS

Based on the results obtained from the research, it is recommended for future studies:

To investigate the relationship between the resilience potential factors, the characteristics of the family functioning, and the disability acceptance of parents of children with ASD in their interaction with the level of the abilities of their children. The aspects related to social interaction, pragmatic language and social communication are of interest because these are considered indispensable to achieve the educational and social inclusion of this children. It is also very important to get more information about the aforementioned topics to coach parents on issues related to the transition from childhood to adolescence, and from this one to the adult life, topics such as sexuality, independence and autonomy, as well as vocational and labor placement are crucial, especially because their own fears about the future of their children with ASD.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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