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Association between sociodemographic characteristics, stress level and resilience with family functioning of immigrants

Associação entre características sociodemográficas, nível de estresse e resiliência com funcionamento familiar de imigrantes

Asociación entre características sociodemográficas, nivel de estrés y resiliencia con el funcionamiento familiar de inmigrantes

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ABSTRACT

Objective: To analyze the association between sociodemographic characteristics, level of perceived stress and resilience with family functioning of immigrants in Brazil.

Method: Cross-sectional study with 122 immigrants living in a municipality in southern Brazil. Data collected in 2021, using questions for characterization, Family Cohesion and Adaptability, Resilience and Perceived Stress Assessment Scale. Data were analyzed in SPSS®, using descriptive and analytical measures (Mann-Whitney, Kruskal-Wallis and post-hoc tests with Bonferroni correction).

Results: The immigrants were between 18 and 69 years old (average 35.6 years ± 12.0), the majority were female, Venezuelan, with up to eight years of education, family income of one minimum wage, lived in a rented house and had been in Brazil for more than two years. Half had a partner and 18.9% immigrated alone. Family cohesion was associated with marital status, age, education, number of residents and who they came to Brazil with; adaptability with length of stay, who came to Brazil with, number of residents and religion. Greater perceived stress occurred in disconnected families (with less cohesion) and more resilience in connected, agglutinated (with greater cohesion) and rigid (more adapted) families.

Conclusion: Sociodemographic characteristics, level of perceived stress and resilience influenced the family functioning of immigrants.

Descriptors: Emigrants and Immigrants; Psychological stress; Psychological resilience; Family; Nursing.

RESUMO

Objetivo: Analisar a associação entre características sociodemográficas, nível de estresse percebido e resiliência com funcionamento familiar de imigrantes no Brasil.

Método: Estudo transversal com 122 imigrantes residentes em município do sul do Brasil. Dados coletados em 2021, utilizando questões para caracterização, Escala de Avaliação da Coesão e Adaptabilidade Familiar, Resiliência e Estresse Percebido. Os dados foram analisados no SPSS®, por meio de medidas descritivas e analíticas (testes Mann-Whitney, Kruskal-Wallis e post-hoc com correção de Bonferroni).

Resultados: Os imigrantes tinham entre 18 e 69 anos (média 35,6 anos ± 12,0), sendo a maioria do sexo feminino, venezuelanos, com até oito anos de estudo, renda familiar de um salário-mínimo, morava em casa alugada e estava no Brasil há mais de dois anos. Metade tinha companheiro(a) e 18,9% imigraram sozinhos. A coesão familiar associou-se com estado civil, idade, escolaridade, número de residentes e com quem veio para o Brasil; adaptabilidade com tempo de permanência, com quem veio para o Brasil, número de residentes e religião. Maior estresse percebido ocorreu em famílias desligadas (com menor coesão) e mais resiliência nas conectadas, aglutinadas (com maior coesão) e rígidas (mais adaptadas).

Conclusão: Características sociodemográficas, nível de estresse percebido e resiliência influenciaram no funcionamento familiar de imigrantes.

Descritores: Emigrantes e imigrantes; Estresse psicológico; Resiliência psicológica; Família; Enfermagem.

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RESUMEN

Objetivo: Analizar la asociación entre características sociodemográficas, nivel de estrés percibido y resiliencia con el funcionamiento familiar de inmigrantes en Brasil.

Método: Estudio transversal con 122 inmigrantes residentes en un municipio del sur de Brasil. Datos recopilados en 2021, mediante preguntas de caracterización, Escala de Evaluación de Cohesión y Adaptabilidad Familiar, Resiliencia y Estrés Percibido. Los datos fueron analizados en SPSS®, mediante medidas descriptivas y analíticas (Mann-Whitney, Kruskal-Wallis y pruebas post-hoc con corrección de Bonferroni).

Resultados: Los inmigrantes tenían entre 18 y 69 años (promedio 35,6 años ± 12,0), la mayoría eran mujeres, venezolanos, con hasta ocho años de educación, ingreso familiar de un salario mínimo, vivían en casa rentada y habían estado en Brasil desde hace más de dos años. La mitad tenía pareja y el 18,9% inmigró solo. La cohesión familiar se asoció con el estado civil, la edad, la escolaridad, el número de residentes y con quién vino a Brasil; adaptabilidad con la duración de la estancia, con quién vino a Brasil, número de residentes y religión. Se produjo un mayor estrés percibido en familias desconectadas (con menos cohesión) y más resiliencia en familias conectadas, aglutinadas (con mayor cohesión) y rígidas (más adaptadas).

Conclusión: Las características sociodemográficas, el nivel de estrés percibido y la resiliencia influyó en el funcionamiento familiar de los inmigrantes.

Descriptores: Emigrantes e Inmigrantes; Estrés psicológico; Resiliencia psicológica; Familia; Enfermería.

INTRODUCTION

Migration is a global phenomenon. In most cases, immigrant families move because they suffer from social and economic vulnerabilities. However, they end up being exposed to new situations of vulnerability when they arrive in the host country[1]. Difficulties adapting to the climate, intolerance, lack of empathy among nationals, xenophobia – the aversion to non-nationals –, language barriers, and challenges in entering the job market and studying deserve special mention[2-3]. This results in failure to integrate into the new society and culture and generates emotional stress[2].

Immigration is a key determinant of the health-disease process of individuals and their families. Therefore, immigrants and refugees are much more vulnerable to physical and/or psychological trauma[1]. This is due to continuous exposure to different stressful events such as lack of sleep, food insecurity, forced family breakdown, permanent feelings of fear, insecurity, and stigmatization. These situations will be perceived by the organism as threats to bodily balance, which increases the level of perceived stress and has a negative impact on physical and mental health[4] and, consequently, on family dynamics and functioning[5].

The family is one of the main pillars of society, as people's socialization occurs through it. It is important to recognize the different ways of being and signifying a family, which often include neighbors and friends as family members[6]. Each family has a unique configuration and requires a minimum structure to be functional and perform essential tasks. Mutual support and respect for individualities are essential for the feeling of cohesion and belonging among its members[4]. A healthy family remains emotionally connected and promotes its internal growth, is willing to change and faced with crises or adverse situations, is able to adapt to the new reality, finding a balance between change and stability[5].

The adaptive and integration process of immigrant families requires resilience – the ability to adapt to adverse situations[7]. The reason is that regardless of the type of immigration, territorial change, and physical distance will inevitably affect identity, communication, roles, and family functioning[8]. Nevertheless, the relationship between family members has been described as a facilitator in coping with the immigration and refugee process[9], as they generally provide support and offer security in the face of adverse situations. Therefore, it is important to know the experiences of immigrant families, what they do to maintain their functioning and how they experience family processes, to favor integration into the new sociocultural reality and the beginning of a new life.

The Family Circumplex Model[10] has been used in nursing to identify family functioning at the interface between health and disease[11]. The three dimensions of this model are cohesion, adaptability, and communication. Cohesion refers to the emotional connection between family members, while adaptability, or flexibility, assesses the family's ability to change its power structure, rules, and roles in response to stressful situations. Communication, in turn, facilitates the movement between the other two dimensions[10].

However, no studies were found on family functioning in the context of immigration. Thus, given that the family is one of the pillars of society, as it can influence the behavior and experience of each individual within the family system and in society itself, and that immigration and refuge are characterized as determinants of the health-disease process[9], it is necessary to evaluate relational aspects of this institution to understand how interactions between its members affect the daily lives and mental health of these people.

Worldwide, the health of immigrants is an emerging public health problem, as the specific mental health needs of this population vary depending on sociodemographic factors, which can impact mental health and family functioning[3]. Despite the topic's relevance, few studies investigate how sociodemographic characteristics, perceived stress levels, and resilience influence the family functioning of immigrants. It is believed that family dynamics and the type of functioning/interaction between its members can impact

the way immigrants perceive and deal with stress. Therefore, it is necessary to understand these relationships to support the development of public policies and specific interventions that can effectively support immigrant families.

In view of the above, the following question was posed: do sociodemographic characteristics, perceived stress levels, and resilience affect the family functioning of immigrants? To answer this question, the following objective was established: to analyze the association between sociodemographic characteristics, perceived stress level, and resilience with family functioning of immigrants in Brazil.

METHOD

Cross-sectional, analytical and exploratory study carried out in the municipality of Maringá, Paraná (PR), Brazil. The eligible population consisted of international immigrants who lived in Maringá and were selected in a non-probabilistic manner.

As a conceptual basis, Olson's Circumplex Model of the Marital and Family System[10], was used, which is integrated by three dimensions relevant to the understanding of family functionality: cohesion, adaptability, and communication. Cohesion refers to the emotional connection that exists between family members. There are four levels of cohesion ranging from disengaged (very low) to disconnected (low to moderate) and connected (moderate to high) to enmeshed (very high). Central levels of cohesion (separate and connected) are assumed to contribute to optimal family functioning, while extreme levels (disengaged or enmeshed) are generally seen as problematic for long-term relationships[10].

Family adaptability/flexibility concerns the amount of change in its leadership, relationships, and relationship rules. Specific concepts include leadership (control and discipline), negotiation styles, role relationships, and relationship rules. The focus of adaptability is on how systems balance stability versus change. The four levels of adaptability range from rigid (very low) to structured (low to moderate) and from flexible (moderate to high) to chaotic (very high). As with cohesion, it is proposed that levels of central adaptability (structured and flexible) are more conducive to good marital and family functioning, with extremes (rigid and chaotic) being the most problematic for families[10].

Finally, communication is considered a facilitating and critical dimension that allows the movement of the other two dimensions and involves listening skills, speaking skills, self-disclosure, clarity, continuity tracking, and respect and consideration[10].

The previously defined inclusion criteria were individuals aged 18 years or over, able to communicate in Portuguese, English, or Spanish, and who have been living in the city where the study is carried out for more than six months and less than five years. This period was established so that participants were already able to adapt minimally to the new location but were still impacted by the migratory context. In turn, the exclusion criterion established was failing to answer more than 10% of the questions in the data collection instruments. However, no potential participant was excluded.

The first individuals were approached and invited to participate when they attended, for any reason, a Non-Governmental Organization (NGO) that supports immigrants, where the first author stayed for three afternoons a week to collect data. Posters containing basic information about the research and the researcher's contact details (telephone and email) were also posted at this location.

At the initial approach, participants were informed about the study and its objectives. Those who agreed to participate were offered the option of having the interview on the same day or scheduling a location, date, and time that was more convenient for them. After the inclusion of the first participants, the sampling technique called snowball sampling was also used[12].

According to this technique, people who have a certain common characteristic are connected to a social network, made up of ties, and are more easily identified by other members of this network than by researchers. Thus, at the end of the interviews, participants were encouraged to nominate two or three acquaintances who met the previously established inclusion criteria and who would probably agree to participate in the study. The people nominated, in turn, were invited individually, through personal contact, or via a multiplatform communication application – WhatsApp®.

Data were collected from May to November 2021 through face-to-face interviews, previously scheduled or not, in a reserved room at the NGO or another location preferred by the participant (residence and educational institution). Four instruments were applied during the interviews:

a) Sociodemographic questions – instrument prepared by the authors (include age, gender, marital status, education, nationality, family income, length of stay in the country, number of children, insertion in the job market, current residence, and religion).

b) FACES III: Family Adaptability & Cohesion Evaluation Scales[10] validated in Brazil [13] – aims to evaluate two major dimensions of the circumplex model: adaptability and family cohesion, which are classified into four levels each: Adaptability (chaotic, flexible, structured and rigid) and Cohesion (disconnected, separate, connected and agglutinated)[10,13]. It consists of 20 questions on a five-point Likert scale. Odd-numbered items measure Family Cohesion (FC,

10 items, e.g., "Our family members ask each other for help"), while even-numbered items assess Family Adaptability (FA, 10 items, e.g., "When we solve problems, we tend to consider our children's opinions"). Higher scores indicate higher levels of cohesion and adaptability. When interpreting the results, it is possible to identify 16 types of marital and family systems.

c) Perceived Stress Scale – PSS-14[14] – the version validated in Brazil[15] has 14 questions with five response options (0=never to 4=always). The sum of the scores is inverted in questions with a positive connotation (4, 5, 6, 7, 9, 10 and 13). The total score ranges from zero to 56 points, with zero being the lowest level of perceived stress and 56 the highest[15].

d) Resilience Scale[16]: used to measure levels of positive psychosocial adaptation to important life events. The version validated in Brazil[17] has 25 items described positively with Likert-type responses ranging from 1 (completely disagree) to 7 (completely agree). Total scores range from 25 to 175 points, with high values indicating greater resilience[17].

The "Circumplex Family Model"[10] was used as a theoretical framework. It classifies families according to the level of Cohesion, Adaptability and Communication among its members and has been applied in social, human, and health sciences[18-19]. Cohesion refers to the degree of emotional connection between family members, while adaptability is related to the ability to promote change in stressful situations. In turn, communication is a facilitating element of these two dimensions[10].

According to this Circumplex Family Model, families can be classified as balanced, mid-range and extreme. The central hypothesis is that balanced families are more stable and function more adequately than extreme families, which, in turn, tend to have greater relationship problems throughout the life cycle. This means that too little or too much cohesion and adaptability is dysfunctional for the family system. Mid-range families maintain an intermediate balance between cohesion and adaptability, not clearly leaning towards either extreme. They demonstrate some degree of cohesion and adaptability, but without exaggeration, and are considered at risk of becoming dysfunctional or reasonably healthy, as they are neither excessively restrictive nor chaotic[10].

Due to the difficulty in determining the exact number of immigrants residing in the city, since this population tends to fluctuate, non-probabilistic snowball sampling was used. Thus, using the Jamovi statistical program and the Jpower module and considering the sample size of 122 people, an estimated minimum test effect size of 0.256, the probability of detecting the magnitude of the effect, that is, the power of the test was 80%, with a significance level (α) set at 0.05.

The data were tabulated in an Excel® spreadsheet and analyzed in the SPSS® software version 27.0. In the analysis of the Cronbach's Alpha coefficient, the FACES III scale and the PSS 14 scale showed substantial reliability with a coefficient of 0.79 and 0.70 respectively. The resilience scale had almost perfect reliability, with a Cronbach's alpha of 0.87[20]. Kolmogorov-Smirnov test, with Liliefors correction, indicated non-normality in the distribution of data, and non-parametric tests and the median were used.

In the description of qualitative variables, absolute and relative frequency measures were used, and in quantitative variables, means and standard deviations were used, considering the Central Limit Theorem. To verify the influence of exposure variables (sociodemographic, perceived stress and resilience) with the outcome variable investigated (family functioning), nonparametric Mann-Whitney and Kruskal-Wallis tests were used, according to the number of categories of the related variables. In variables with more than three categories with statistical significance values ≤0.05, the Dwass-Steel-Critchlow-Fligner (DSCF) post-hoc paired comparison test was used, with adjustment by Bonferroni correction for multiple tests, to verify pairs with statistically different medians. To highlight the strength of the statistical association between the variables, the Ranking score was used.

All ethical principles regulated by resolutions 466/2012 and 510/2016 of the National Health Council were observed, and the project was approved by the Human Research Ethics Committee of the signatory institution under Protocol no. 4,450,114 and CAAE no. 40442120.4.0000.0104. All participants agreed to participate in the study by signing the Free and Informed Consent Form (FICF).

RESULTS

The study sample consisted of 122 immigrants, most of whom had the following characteristics: aged between 18 and 69 years (mean 35.6 years ± 12.0), eight years of education (74.6%), female (59.8%), equally divided between having or not having a partner, declared themselves to be Catholic (31.1%) and 30.3% reported believing in God, without a specific religious affiliation. Regarding countries of origin, Venezuela (66.4%) and Haiti (15.6%) predominated, followed by Nigeria (5.7%), Cuba (2.4), São Tomé (2.4), Peru (1.6%), Bolivia (1.6%), Colombia, Paraguay, Argentina, Dominican Republic and Cameroon (one each). More than half of the immigrants (57.4%) had been in Brazil for more than two years, half (50.0%) were working and of these, 30.3% had formal jobs.

Most immigrants declared themselves to be brown (46.7%) or black (27.0%), had a family income of up to one minimum wage (60.7%), lived in rented property (71.3%), and lived with five or more people (48.4%). Slightly more than half of the immigrants (50.8%) reported having come to live in Brazil with up to four family members and 18.9% came alone.

The sociodemographic characteristics of immigrants and the median scores of perceived stress, resilience, cohesion and adaptability are shown in Table 1. Regarding resilience, the highest scores were observed in immigrants with the following characteristics: female, over 65 years old, who have partners, 15 or more years of education, up to 12 months of stay in Brazil, who came to the country with 5 or more family members, self-declared white, income of up to one minimum wage, unemployed, living in the homes of people they know and who had no religion (Table 1).

Stress scores were higher for female respondents, aged 18-25, without partners, eight years of schooling, with up to 12 months of stay in Brazil, who came to the country with 5 or more family members, self-declared white, with an income of more than one minimum wage, not inserted in the job market, living in the homes of people they know and who were Jehovah's Witnesses (Table 1).

In the evaluation of cohesion scores, higher values were observed in female immigrants, aged 45-55, who had partners, 12 years or more of education, up to 13 to 24 months of stay in Brazil, who came to the country with family members, self-declared brown, with income up to one minimum wage, self-employed and Mormons (Table 1).

Table 1 -. Sociodemographic characteristics and distribution of frequencies and medians of the scores of Resilience, Perceived Stress, Cohesion, and Adaptability of immigrants. Maringá/PR – Brazil, 2021

Variable	Total	Resilience	Stress	Cohesion	Adaptability
	n* (%)†	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**
Gender					
Female	73 (59.8)	146.0 (27.0)	24.0 (11.0)	42.0 (7.0)	30.0 (8.0)
Male	49 (40.2)	142.0 (26.0)	24.0 (8.0)	41.0 (8.0)	28.0 (8.0)
Age					
18 – 25	27 (22.1)	139.0 (26.5)	27.0 (6.5)	41.0 (11.0)	27.0 (6.5)
26 – 35	37 (30.3)	146.0 (26.0)	23.0 (8.0)	42.0 (9.0)	30.0 (8,0)
36 – 45	33 (27.0)	150.0 (28.0)	24.0 (10.0)	42.0 (3.0)	30.0 (8.0)
46 – 55	17 (13.9)	144.0 (21.0)	21.0 (10.0)	44.0 (4.0)	30.0 (11.0)
56 – 65	6 (4.9)	153.0 (31.0)	19.5 (3.8)	41.5 (4.8)	33.5 (4.5)
> 65	2 (1.6)	154.0 (12.5)	24.5 (3.5)	42.0 (5.0)	34.0 (1.0)
Marital status					
Without a partner	61 (50.0)	139.0 (27.0)	24.0 (9.0)	41.0 (8.0)	29.0 (9.0)
With a partner	61 (50.0)	148.0 (23.0)	23.0 (10.0)	43.0 (4.0)	31.0 (8.0)
Education					
Up to eight years	12 (9.8)	141.0 (27.5)	27.5 (7.8)	38.5 (8.3)	26.5 (7.3)
Nine to 12 years	19 (15.6)	142.0 (21.0)	24.0 (7.0)	43.0 (4.5)	30.0 (7.5)
12 to 14 years	62 (50.8)	146.0 (29.8)	25.0 (7.0)	41.0 (9.0)	30.0 (9.0)
15 or more	29 (23.8)	150.0 (18.0)	18.0 (9.0)	44.0 (5.0)	32.0 (7.0)
Nationality					
Venezuelans	81 (66.4)	148.0 (25.0)	23.0 (10.0)	42.0 (5.0)	31.0 (9.0)

Table 1 – Cont.

Variable	Total	Resilience	Stress	Cohesion	Adaptability
	n* (%)†	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**
Haitians	19 (15.6)	135.0 (24.5)	26.0 (7.5)	40.0 (10.5)	27.0 (8.0)
Others	22 (18.0)	136.0 (32.8)	26.0 (8.0)	39.0 (6.8)	28.5 (3.8)
Length of stay					
up to 12 months	41 (33.6)	150.0 (20.0)	23.0 (9.0)	42.0 (6.0)	30.0 (8.0)
13 to 24 months	35 (28.7)	148.0 (28.0)	20.0 (7.5)	43.0 (4.5)	32.0 (6.5)
> 25 months	46 (37.7)	134.0 (26.3)	26.5 (7.8)	40.5 (9.8)	27.0 (8.8)
Who did they come to Brazil with					
With up to 4 family members	62 (50.8)	147.0 (28.3)	24.0 (10.8)	42.0 (4.8)	32.0 (7.0)
With 5 or more family members	37 (30.3)	148.0 (23.0)	22.0 (9.0)	42.0 (8.0)	29.0 (7.0)
alone/with friends	23 (18.9)	134.0 (27.5)	26.0 (8.0)	38.0 (8.5)	27.0 (6.5)
Skin color					
Black	33 (27.0)	133.0 (31.0)	26.0 (6.0)	40.0 (8.0)	27.0 (4.0)
White	28 (23.0)	152.0 (15.0)	23.5 (9.5)	42.0 (8.3)	30.5 (8.0)
Brown	57 (46.7)	146.0 (26.0)	23.0 (10.0)	43.0 (3.0)	30.0 (10.0)
Yellow	4 (3,3)	139.0 (5.3)	21.0 (8.3)	40.0 (9.0)	33.5 (2.5)
Family income					
Up to one MW	74 (60.6)	146.0 (25.8)	23.0 (8.8)	42.0 (6.0)	30.0 (9.0)
> one MW	48 (39.4)	143.0 (29.3)	25.5 (8.3)	41.0 (10.3)	29.0 (7.0)
Insertion into the job market					
Formally employed	37 (30.3)	140.0 (26.0)	23.0 (11.0)	41.0 (8.0)	28.0 (8.0)
Self-employed	24 (19.7)	148.0 (15.0)	23.5 (5.3)	42.5 (9.0)	31.5 (6.3)
Unemployed	35 (28.7)	150.0 (29.0)	24.0 (9.0)	42.0 (3.0)	29.0 (10.5)
Not included (Housewives/ students)	26 (21.3)	143.0 (21.8)	27.5 (9.5)	40.5 (10.8)	32.0 (7.8)
Current residence					
Rented	87 (71.3)	145.0 (29.3)	24.0 (13.5)	42.0 (8.0)	30.0 (7.5)
Borrowed	11 (9.0)	135.0 (26.0)	19.0 (9.5)	42.0 (7.0)	32.0 (8.0)
Owned	10 (8.2)	138.0 (24.0)	24.0 (9.0)	42.0 (8.0)	28.0 (14.0)
Shelter	10 (8.2)	148.0 (7.5)	24.5 (5.5)	41.0 (10.0)	28.5 (11.5)

Table 1 – Cont.

Variable	Total	Resilience	Stress	Cohesion	Adaptability
	n* (%)†	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**	M_d (IQR)**
At an acquaintance's house	4 (3.3)	149.0 (15.8)	27.5 (4.8)	46.0 (4.0)	40.5 (9.3)
Religion					
Catholic	38 (31.1)	148.0 (26.5)	24.0 (12.0)	43.0 (6.5)	32.5 (11.8)
Evangelical	27 (22.1)	144.0 (21.5)	24.0 (12.0)	43.0 (8.5)	27.0 (10.5)
Mormon	12 (9.8)	149.0 (12.5)	21.5 (6.3)	44.5 (6.3)	33.5 (3.0)
Christian (undefined)	37 (30.3)	134.0 (29.0)	24.0 (5.0)	41.0 (8.0)	28.0 (8.0)
None	7 (5.7)	150.0 (25.0)	26.0 (13.0)	41.0 (4.0)	29.0 (3.0)
Jehovah's Witness	1 (0.8)	145.0 (0.0)	37.0 (0.0)	41.0 (0.0)	16.0 (0.0)

Source: Research data, 2021.
*: Absolute frequency; †: Relative frequency; **: Median (Interquartile Range); ‡: MW: minimum wage for 2021 according to Law 14158/2020 was BRL 1,100.00

Regarding adaptability, the highest scores were observed in women, aged over 56, who had partners, 15 or more years of education, 13 to 24 months of stay in Brazil, who came to the country with up to 4 or more family members, self-declared white, income of up to one minimum wage, not included in the job market, staying at an acquaintance's house and Mormons (Table 1).

Figure 1 shows, from the perspective of the immigrants in this study, the classification of their families according to Olson's Circumplex Model. There is a tendency for greater concentration in the model's center, indicating that most of them have a well-functioning family.

The median scores for the cohesion dimension were statistically significant and higher for immigrants who were married or had a partner (rank 69.7); with complete higher education (rank 76.5) compared to those who were illiterate and had incomplete primary education (rank 44.5); who came to live in Brazil with up to four family members (rank 66.4) compared to those who live alone or with friends (rank 44.6); who live in a house with five to eight people compared to those who live in a home with three to four people and more than nine; and who are over 35 years old (Table 2).

For the adaptability dimension, the medians were statistically significant and higher for immigrants who have been in Brazil for between 1 and 2 years (Rank 76.2), compared to those who have been in Brazil for between 6 months and 1 year (Rank 62.0) and more than 6 years (Rank 46.3); who live in the same household with 5 to 8 people (Rank 68.0), compared to 9 people (Rank 36.5); those who came to live in Brazil with up to 2 family members (Rank 79.8) compared to those who lived alone (Rank 45.6) or with friends (Rank 19.5); Catholics (Rank 77.3) and Mormons (Rank 87.1); compared to evangelicals (Rank 48.8) and those of undefined Christian religion (Rank 49.6) (Table 2).

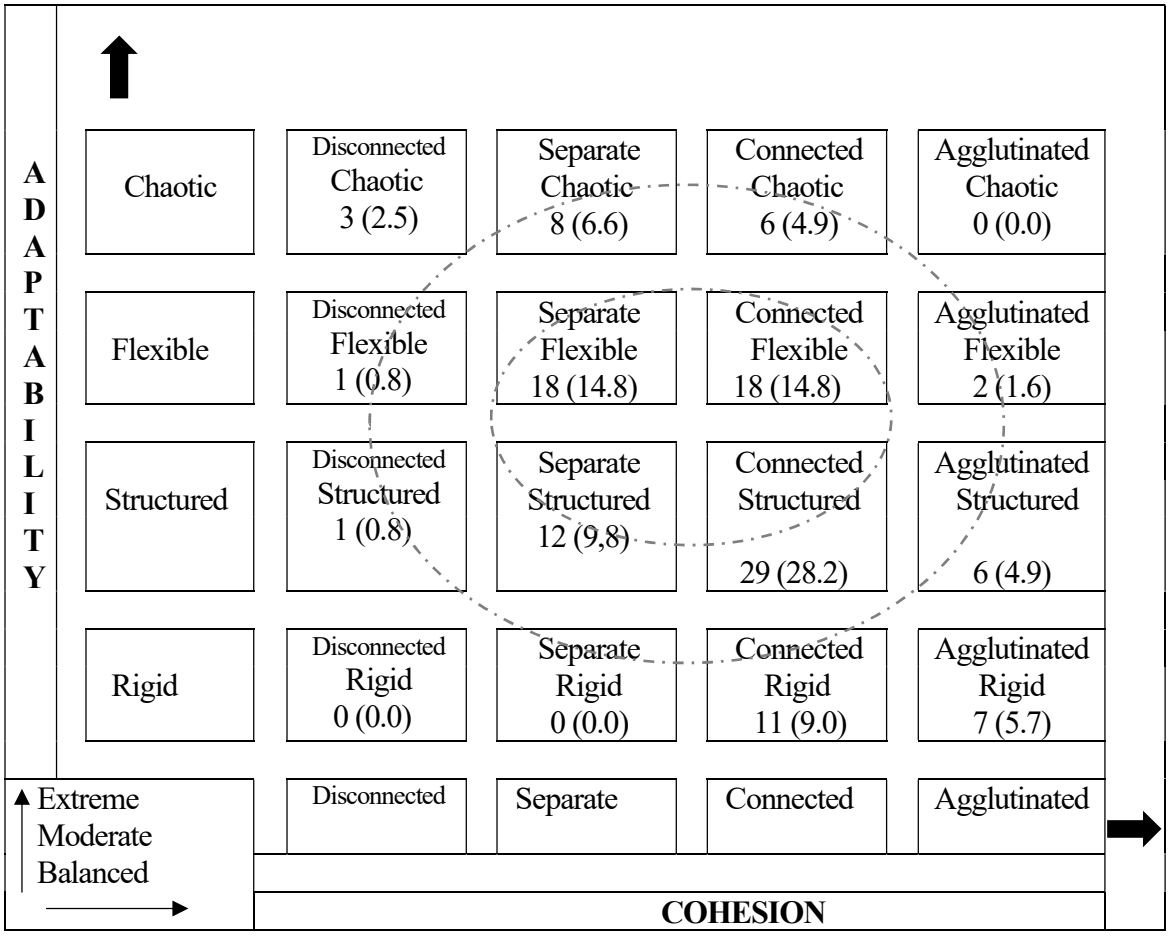
Statistically significant differences were observed in the medians of perceived stress scores in relation to the family classification of the cohesion dimension. Higher perceived stress scores were observed in families categorized as disconnected (Rank 100.1), and the lowest value was observed in connected families (Rank 54.0). No significant associations were observed between Adaptability and Perceived Stress, with the highest Perceived Stress score found in flexible families (Rank 71.8) and the lowest in rigid families (Rank 53.8).

In Table 3, statistically significant differences are observed in the medians of the Resilience Scores in relation to family cohesion and adaptability, with the highest Resilience scores observed in families categorized as agglutinated (Rank 82.8), and the lowest in the Disconnected families (Rank 32.2). Regarding adaptability, the highest scores were observed in families categorized as Rigid (Rank 86.0) and the lowest in Flexible families (Rank 50.0).

DISCUSSION

The body of empirical evidence on family functioning allows for a greater understanding of its association with the health-disease process of individuals. Systematic review with meta-analysis found that individuals in social vulnerability, such

Figure 1 – Distribution of immigrant families (n; %) according to the level of cohesion and adaptability. Maringá/PR, Brazil, 2024.



Source: Research data, 2021.

Table 2 – Sociodemographic variables and medians of scores of the Faces scale of family cohesion and adaptability of immigrants. Maringá/PR, 2024.

Variables	Faces Score for Cohesion				Faces Score for Adaptability		
	n	Md (IQR)‖	Rank	p§	Md (IQR)‖	p§	Rank
Marital Status							
single/without a partner	61	41.0 (8.0)	53.3	**0.010****	29.0 (9.0)	0.051**	55.3
married/with a partner	61	43.0 (4.0)	69.7		31.0 (8.0)		67.8
Education							
Illiterate – Incomplete elementary school	12	37.5[a] (8.0)	44.5	**0.015** β	27.5 (7.3)	0.199 β	48.8
Complete elementary school – Incomplete high school	19	41.8[b] (4.5)	68.4		30.4 (7.5)		61.0

Table 2 – Cont.

Variables	Faces Score for Cohesion				Faces Score for Adaptability		
	n	Md (IQR)‖	Rank	p§	Md (IQR)‖	p§	Rank
Complete high school – Incomplete higher education	62	39.2[c] (9.0)	55.7		29.1 (9.0)		59.0
Complete higher education – Postgraduate studies	29	42.9[a] (5.0)	76.5		31.8 (7.0)		72.4
Length of stay							
6 months to 1 year	28	41.5 (5.3)	62.0	0.075 β	26.5[b] (9.3)	**0.003** β	51.0
1 to 2 years	48	43.0 (4.3)	70.0		32.0[a,b] (7.0)		76.2
3 to 5 years	23	42.0 (10.0)	59.3		27.0[c] (9.0)		54.4
More than 6 years	23	40.0 (7.5)	46.3		28.0[a] (4.5)		49.8
Occupation							
Unemployed	35	42.0 (3.0)	66.4	0.094 β	29.0 (10.5)	0.011 βΣ	56.1
Formally hired worker with a social security number	37	41.0 (8.0)	55.9		28.0 (8.0)		52.1
Self-employed	24	42.5 (9.0)	66.5		31.5 (6.3)		71.7
Student	4	33.5 (4.0)	19.9		25.5 (6.5)		32.4
Housewife	22	42.0 (11.3)	65.4		33.0 (7.3)		78.9
With whom did they come to live in Brazil							
With one family member	18	41,5 (6.3)	6.6	0.093 β	30.0[e] (8.3)	**0.006** β	59.9
With two family members	26	44.0 (4.5)	74.7		34.0[a] (6.0)		79.8
With three or four family members	18	42.0 (2.0)	59.4		32.0[d] (7.3)		68.3
With more than five family members	37	42.0 (8.0)	63.8		29.0[c] (7.0)		58.3
With friends/acquaintances	3	40.0 (4.5)	34.3		17.0[b] (7.0)		19.5
Alone	20	38.0 (9.3)	46.1		27.0[a] (5.3)		45.6
Number of people living together							
Up to 2 people	25	41.0c (7.0)	61.0	0.005 β	31.0a (8.0)	0.021 β	67.0
3 to 4 people	38	41.0b (8.5)	51.6		30.0c (7.0)		60.2
5 to 8 people	44	44.0a,b (3.3)	75.5		32.0b (7.0)		68.0

Table 2 – Cont.

Variables		Faces Score for Cohesion			Faces Score for Adaptability		
	n	Md (IQR)‖	Rank	p§	Md (IQR)‖	p§	Rank
More than 9 people	15	41.0a (6.0)	46.4		26.0a,b (5.0)		36.5
Religion							
Catholic	38	43.0 (6.5)	67.6	0.196 β	32.5a,c (11.8)	<0,001 β	77.3
Evangelical	27	43.0 (8.5)	64.6		27.0a,b (10.5)		48.8
Mormon	12	44.5 (6.3)	74.5		33.5b,d (3.0)		87.1
Christian (undefined)	37	41.0 (8.0)	52.3		28.0c,d (8.0)		49.6
None	7	41.0 (4.0)	44.3		29.0e (3.0)		52.6
Jehovah's Witness	1	41.0 (0.0)	50.5		16.0f (0.0)		3.5
Nationality							
Venezuelans	81	42.0 (5.0)	66.9	0.048 β∑	31,0 (9.0)	0.179 β	65.7
Haitians	19	40.0 (10.5)	54.3		27.0 (8.0)		53.6
Others	22	39.0 (6.8)	47.7		28.5 (3.8)		52.8
With whom did they come to Brazil?							
With up to 4 family members	62	42.0a (4.8)	66.4	0.036 β	32.0a (7.0)	0.004 β	70.6
With 5 or more family members	37	42.0b (8.0)	63,8		29,0b (7.0)		58.3
Alone/with friends	23	38.0a (8.5)	44.6		27.0a (6.5)		42.2
Age							
Up to 35	65	41.0 (10.0)	54.5	0.020**	29 (9.0)	0.066**	55.3
> 35	57	42.0 (4.0)	69.4		32 (8.0)		67.8

Source: Research data, 2021.

‖ Median of scores and Interquartile Range. §Significance value of the statistical test. **Significance of the Mann-Whitney test. βSignificance of the Kruskal-Wallis test. a/b/c/d/e/f. Dwass-Steel-Critchlow-Fligner post-hoc test (with adjustment by the Bonferroni correction for multiple testing in values with significance 0.05): same letters = $p \leq 0.05$; different letters = $p > 0.05$. ∑Bonferroni correction did not indicate statistically significant differences in the comparisons of the categories of the variables occupation and nationality.

Table 3 – Median scores on the Perceived Stress and Resilience scales according to family functioning of immigrant families. Maringá/PR, 2024.

Family classification	Perceived Stress				Resilience			
	n* (%)†	Md (IQR)‖	Rank	p§	n* (%)†	Md (IQR)‖	Rank	p§
Cohesion								
Disconnected	05 (4.1)	28.0[a] (11.0)	100.1	**0.007**β	05 (4.1)	121[c] (8.0)	32.2	**<0.001**β
Separate	38 (31.1)	26.0[b] (7.8)	71.2		38 (31.1)	132[a,b] (21.0)	41.3	
Connected	64 (52.5)	22.5[a] (9.0)	54.0		64 (52.5)	150[a] (22.0)	70.7	
Agglutinated	15 (12.3)	23.0[c] (7.5)	55.9		15 (12.3)	154[b] (17.0)	82.8	
Adaptability								
Chaotic	17(14.0)	26.0[a] (10.0)	66.1	0.092β	17 (14.0)	144[a] (22.0)	52.7	**0.003**β
Flexible	39 (32.0)	26.0[b] (7.5)	71.8		39 (32.0)	134[b] (18.5)	50.0	
Structured	48 (39.3)	22.5[c] (7.3)	54.3		48 (39.3)	148[c] (26.0)	64.8	
Rigid	18 (14.7)	23.5[d] (14.8)	53.8		18 (14.7)	155[a,b] (12.3)	86.0	

Source: Research data, 2021.
*Absolute frequency. †Relative frequency. ‖Median of scores and Interquartile Range. §Significance value of the statistical test. βSignificance of the Kruskall-Wallis test. [a/b/c/d] Dwass-Steel-Critchlow-Fligner post-hoc test (with adjustment by Bonferroni correction for multiple testing on values with significance 0.005): same letters = $p \leq 0.05$; different letters = $p > 0.05$.

as immigrants, are at greater risk of family dysfunction and that this may be a predictor for severe depression[21]. The fact that "Disconnected" families had higher levels of perceived stress, in contrast to "Connected" families, suggests that the level of family cohesion may influence perceived stress in immigrants, and may be a protective factor for mental health.

This idea is reinforced by a study carried out in Europe, which found that immigrants have a significant risk of developing mental health problems, due to family separation, daily material stress and discrimination in resettlement[22].

A Polish study that measured the family functioning of 204 people observed a positive and significant correlation between cohesion and adaptability with life satisfaction and emotional intelligence. Life satisfaction was negatively correlated with agglutinated, disengaged and chaotic family functioning. In contrast, emotional intelligence was negatively correlated only with chaotic and disengaged functioning[19].

In contrast to these findings, the results of the present study revealed higher resilience medians in the cohesion dimension for connected and agglutinated families, compared to separated families. Furthermore, regarding adaptability, rigidly structured families demonstrated greater resilience compared to those classified as chaotic and flexible.

It is known that families that maintain a high level of cohesion tend to prioritize open communication, mutual support, and emotional closeness between members. These close bonds can contribute to a sense of belonging and security within the family unit, fostering an environment of trust and collaboration. Furthermore, family cohesion can be influenced by cultural factors, values, and shared experiences, which can strengthen bonds between family members[10].

The relationship between rigid families and greater resilience in the adaptability dimension can be explained by the establishment of clear structures and defined rules in the family environment. Families characterized by rigidity tend to maintain a level of organization, with clearly defined roles and expectations. This stability can provide family members with a sense of security and predictability, making it easier to adapt to external challenges and stressors. In addition, rigidity can be perceived as a form of protection against uncertainty and change, encouraging effective coping strategies and fostering greater resilience in the face of adversity. However, this rigidity can also limit flexibility and the ability to adapt in situations that

require a more dynamic and flexible response, as it is necessary to balance stability with the ability to adjust to changes[10].

The dynamics of immigration may not be homogeneous and vary significantly for each individual or family. However, it has been systematically observed that adaptation to a new country is related to the length of stay/arrival of that individual or family[12]. Individuals who have been living in the country for more than 25 months demonstrated lower resilience than those who have been living there for 12 months or between 13 and 24 months. During the first months of residence in the country, these individuals tend to be strongly determined to overcome these obstacles, having a high level of motivation and hope, which can increase their resilience[7].

The results of the present study for family functioning revealed higher medians in the adaptability dimension for individuals who lived in Brazil for a period of 1 to 2 years, compared to those who lived here for 6 months to 1 year or for more than 6 years. This can be explained by the fact that immigrants face a series of challenges when arriving in a new country, such as adapting to a different culture, learning a new language, establishing support networks and finding a job.

Individuals who migrated with up to two family members showed greater adaptability compared to those who lived alone or with friends. These results suggest that family and social context can significantly influence immigrants' ability to adapt to a new country, highlighting the importance of family support in immigrants' adaptation, which provides an emotional support system during the integration process. This hypothesis was confirmed in a study conducted in Atlanta, Georgia, which demonstrated that family strengths, such as parental support and respect, can help compensate for adversities abroad, increasing the resilience of young people in a hostile immigration environment[12].

Furthermore, those immigrants living with up to two people or 5 to 8 people demonstrated greater adaptability compared to those living with nine people, since the number of members could influence family dynamics and the ability to adapt, possibly due to differences in the distribution of responsibilities and the support available within the family group. Furthermore, immigrants who came to live in Brazil with up to four family members also had a higher level of cohesion compared to those who live alone or with friends, which suggests that the presence of close family members can promote a sense of support and unity[23].

Regarding the religious aspect, Catholics and Mormons showed greater adaptability compared to evangelicals and undefined Christians, which may reflect differences in community support networks, personal beliefs, and coping strategies associated with each religious group. Family functioning can also have important health implications. In Spain, for example, the relationship between family functioning and children's nutritional status was examined using the FACES III Scale. It was found that most parents of malnourished children had an unbalanced family functioning, characterized by partially related or unrelated cohesion, but with chaotic adaptability [11].

The emphasis on the family allows us to understand how family functioning and other demographic and socioeconomic characteristics, are associated with individual health help-seeking behaviors and structural and cultural barriers perceived with the use of professional services. Greater family cohesion and greater involvement among members are associated, for example, with lower use of mental health services [23].

Another relevant result of this study on family functioning, for the cohesion dimension, is that immigrants over 35 showed greater family cohesion. Greater cohesion was also observed among those with completed higher education compared to illiterate individuals and individuals with incomplete primary education. This suggests that educational level may play a significant role in the quality of family relationships, possibly reflecting greater communication and conflict resolution skills among those with more formal education.

Maturity and experience accumulated throughout life, associated with a higher educational level, can increase family resilience, strengthening family ties and promoting greater cohesion even in the face of challenges such as migration and adaptation to a new environment. On the other hand, factors such as stress associated with low education, unemployment and poverty may represent additional obstacles to family cohesion, especially among those with fewer resources and social support[24].

In Australia, a study conducted in public health services highlighted the importance of socioeconomic and environmental factors in family health. It was found that the context in which people eat, sleep and live can be a structural or intermediate determinant of family functioning and consequently affect the health condition of its members [24].

A Brazilian study that investigated aspects of family resilience associated with multiple socioeconomic dimensions found that the higher the poverty level, the lower the family resilience. This result highlights the importance of considering the socioeconomic determinants that affect family functioning and, by extension, the health of its members. The other aspects assessed, such as work, knowledge, and human development, especially child development, also enhanced family resources to face adversity[25]. Therefore, promoting employment and education opportunities for immigrant families is a strategy to strengthen their resilience in the face of economic challenges.

Also in Brazil, a study with families in unfavorable socioeconomic conditions, using the Sociodemographic Inventory (IDE); the Family Resilience Profile Questionnaire; the Family Poverty Index (FPI); and the Parental Stress Index (PSI), found that there were no families with a high level of resilience, but detected an association of low resilience with high parental stress and a higher level of poverty[26]. These results reinforce how socioeconomic factors can negatively impact family resilience.

In the present study, factors such as nationality, length of stay in Brazil and skin color showed an association with resilience scores, since higher levels were more frequent among Venezuelans, white people, and those who had been living in the country for less than a year. It is possible that this association arises from the fact that white individuals suffer less xenophobia and racism than others, that Venezuelans have a language closer to Portuguese and some similar cultural habits, due to their border position with Brazil.

The relationship between family functioning and health is reciprocal and complex in nature, as health problems can also negatively affect this functioning[24]. Immigrant families experience stressful situations and daily challenges, requiring resistance and resilience to overcome adversity [27]. Thus, a study with Chinese immigrants who lived in the United States of America (USA) showed that positive family relationships were essential during the immigration process, even influencing the use of the health system in the host country by these immigrants [28].

The literature, therefore, is consistent when it states that family functioning is an important factor in the success of immigrants' adaptation and in their ability to maintain physical and mental health during the integration process[24, 27-28]. Family support and cohesion can serve as an emotional and social anchor that helps them cope with the stress and uncertainty of moving to a new country.

A Canadian study that explored the social processes that promote resilience in response to traumatic stressors reported that behavioral and biological responses to stress can influence and be influenced by feelings of safety and that these arise from relationships with other people and spiritual connections[29]. Thus, the feeling of security that emerges from interpersonal relationships plays a fundamental role in the individual's ability to face and overcome stressful situations. Social support and connection with others, therefore, are essential resources for increasing resilience, as they help provide a safe environment in which individuals can express their emotions, share experiences and find comfort[29].

For immigrants, family represents more than blood ties. These are historical connections, permeated by emotions and victories, experienced by different people who have in common the fact that they migrated to another country in search of a more dignified life. When these people meet, they come together to care for each other, because in addition to experiencing the same difficulties, they aim to maintain and protect their family and life[30].

The presence of a partner was associated with higher levels of family cohesion and adaptability due to the construction of social and emotional support networks and a feeling of security and trust. This makes family members feel supported, protected and more likely to share experiences and support each other in times of stress[10].

Regarding family adaptability, the presence of a partner is beneficial in managing stressful events, as it can influence the family's ability to adjust and deal with challenges in a more flexible way. The presence of a partner can mean a more equitable distribution of family responsibilities. Thus, healthy relationships within the family can promote effective communication and joint problem-solving, which is essential for adaptability[10]. This reinforces the importance of family relationships in promoting family adaptability, highlighting the fundamental role of these relationships in managing stressful events and in the family's ability to adjust to changes.

On the other hand, family separation, often necessary due to situations such as the search for economic opportunities, can represent an additional challenge for family functioning and the mental well-being of its members. A study on family separation carried out in Jamaica reported that immigrant mothers who left their children in their country of origin had lower chances of good mental health, compared to those who were with their children[31].

Aware that the migration process can impact the entire family system, and that the family emerges as a power in everyday life, especially for immigrants, who come together for mutual support in the search for a dignified life, health professionals, especially nurses, must seek to understand the factors that facilitate adaptation and family functioning. This, in turn, increases resistance to acculturative stress, favors and directs the evaluation of these families and supports the coordination and implementation of practices aimed at promoting family health. When embraced, families become powerful mediators of transformative actions.

Support policies and programs must consider this dynamic, providing resources to maintain contact and support for separated families, minimizing the negative impact on the mental health of those involved. This is particularly important in cases of crisis migration, and it is recommended that the proposed policies and interventions consider the family as a unit, rather than focusing on parents and children as individual entities, in order to minimize the direct and indirect negative effects on the mental health of adults and children[32].

Immigrants face daily deprivation and live in a reality that is far from what they idealized when they decided to migrate. They persist in pursuing their dreams, supported by their families who provide them with hope and good feelings[30]. Therefore, it is necessary to consider the influence of aspects related to family functioning on the living conditions of immigrants and their families, in order to minimize negative outcomes that may compromise the health of this population, especially mental health.

Possible limitations are related to the predominance of Venezuelan immigrants and a wide variety of nationalities in a relatively small sample, which makes it impossible to compare the results; inclusion of participants who communicated only in Portuguese, English and Spanish and, therefore, did not cover an analysis of all the dialects and languages specific to the immigrants; the fact that studies on family functioning adopt diverse measurement instruments, making it difficult to compare results; the use of the Bonferroni correction, which reduces the occurrence of type I error (probability of finding a statistically significant difference, when in reality such a difference does not exist) and increases the probability of type II error (note that the test result is not statistically significant when in fact it is, which may have occurred with the occupation and nationality variables.

The results found contribute to the advancement of knowledge in the area of family nursing, by reaffirming that family relationships have important repercussions on resilience, perceived stress and the experience of individuals, which is particularly important for those who are facing the migration process and are far from their families. In future studies, investigations are suggested that analyze mental problems resulting from immigration, as well as interventions that promote improvements in this area.

CONCLUSION

Sociodemographic characteristics, perceived stress level and resilience had an impact on the family functioning of immigrants living in Brazil. Cohesion – emotional connection between family members – was statistically associated with the following variables: age (> 35 years), marital status (married or living with a partner), education (12 years or more of study), who they live with (five to eight people), nationality (Venezuelans) and who came to Brazil with (with up to four family members).

Adaptability – the family's ability to face changes – showed a statistically significant association with length of stay in Brazil (between 1 and 2 years), occupation (self-employed), with whom they came to Brazil (other family members), number of people living in the same household (five to eight) and religion (Catholic).

Perceived stress showed a statistically significant association with family cohesion, being more evident in disconnected families (with less cohesion), and although without a significant association with adaptability, it was greater in flexible families. The resilience score showed a significant association with family cohesion (higher in connected and agglutinated families), and with family adaptability higher in rigid families.

Health professionals must understand family dynamics and functioning so that they can help strengthen the family as a system and use strategies aimed at promoting resilience to facilitate the integration of these families in the host country. Further studies are expected to develop interventions aimed at promoting the resilience of immigrant families, minimizing the stress burden, and promoting the physical and mental health of their members and the family as a whole.

REFERENCES

1. World Health Organization (WHO). World report on the health of refugees and migrants: summary. Geneva: World Health Organization; 2022[cited 2021 Dec 21]. Available from: https://iris.who.int/bitstream/handle/10665/360405/9789240054486-eng.pdf?sequence=1
2. Cavalcanti L, Oliveira T, Macedo M. Imigração e refúgio no Brasil: série migrações [Internet]. Relatório Anual 2020. Ministério da Justiça e Segurança Pública; 2020[cited 2021 Dec 21]. Available from: https://portaldeimigracao.mj.gov.br/images/dados/relatorio-anual/2020/OBMigra_RELAT%C3%93RIO_ANUAL_2020.pdf
3. Souza JB, Heidemann ITSB, Walker F, Schleicher ML, Konrad AZ, Campagnoni JP. Vulnerability and health promotion of Haitian immigrants: reflections based on Paulo Freire's dialogic praxis. Rev Esc Enferm USP. 2021;55:e03728. https://doi.org/10.1590/S1980-220X2020011403728
4. Lee J, Hong J, Zhou Y, Robles G. The relationships between loneliness, social support, and resilience among Latinx immigrants in the United States. Clin Soc Work J. 2020;48(1):99-109. https://doi.org/10.1007/s10615-019-00728-w
5. Xiong ZB, Her M, Kira M, Belgrade AJ, Pattipati MA, Xiong GN, et al. Role of family in Refugee Adjustment: experiences of Hmong, Somali, and Syrian Refugees in the USA. Adv Res Sc. 2021;2:285-301. https://doi.org/10.1007/s42844-021-00043-9
6. Wright LM, Leahey M. Theoretical foundations of the Calgary family assessment and intervention models. In: Shajani Z, Snell D, editors. A guide to family assessment and intervention. 7th ed. Philadelphia, PA(US): F.A. Davis Company; 2019. p. 21-50.
7. Walther L, Amann J, Flick U, Ta TMT, Bajbouj M, Hahn E. A qualitative study on resilience in adult refugees in Germany. BMC Public Health. 2021;30;21(1). https://doi.org/10.1186/s12889-021-10817-6
8. Calzada EJ, Roche KM, White RMB, Partovi R, Little TD. Family strengths and Latinx youth externalizing behavior: modifying impacts of an adverse immigration environment. J Latinx Psychol. 2020; 8(4):332–48. https://doi.org/10.1037/lat0000162

9. Silva GJ, Cavalcanti L, Oliveira T, Macedo M. Refúgio em Números, 5ª Ed [Internet]. Observatório das Migrações Internacionais; Ministério da Justiça e Segurança Pública, Comitê Nacional para os Refugiados. Brasília, DF: OBMigra; 2020[cited 2021 Dec 21]. Available from: https://www.justica.gov.br/seus-direitos/refugio/refugio-em-numeros
10. Olson DH. Circumplex Model VII: Validation Studies and FACES III. Fam Process. 1986;25(3):337–51. https://doi.org/10.1111/j.1545-5300.1986.00337.x
11. Paz-Morales MÁ, Martínez-Martínez A, Guevara-Valtier MC, Ruiz-González KJ, Pacheco-Pérez LA, Ortiz-Félix RE. Funcionalidad familiar, crianza parental y su relación con el estado nutricional en preescolares. Atencion Primaria. 2020;52(8):548–54. https://doi.org/10.1016/j.aprim.2020.02.017
12. Leighton K, Kardong-Edgren S, Schneidereith T, Foisy-Doll C. Using social media and snowball sampling as an alternative recruitment strategy for research. Clin Simul Nurs. 2021;55(1):37–42. https://doi.org/10.1016/j.ecns.2021.03.006
13. Falceto OG, Busnello ED, Bozzetti MC. Validação de escalas diagnósticas do funcionamento familiar para utilização em serviços de atenção primária à saúde. Rev Panam Salud Publica [Internet]. 2000[cited 2021 Dec 21];7(4). Available from: https://iris.paho.org/handle/10665.2/8829
14. Cohen S, Karmack T, Mermelsteinm R. A global measure of perceived stress. J Health Soc Behav. 1983;24(4):385-96. https://doi.org/10.2307/2136404
15. Luft CDB, Sanches SO, Mazo GZ, Andrade A. Versão brasileira da Escala de Estresse Percebido: tradução e validação para idosos. Rev Saúde Pública. 2007; 1(41):606–15. https://doi.org/10.1590/S0034-89102007000400015
16. Wagnild GM, Young HM. Development and psychometric evaluation of resilience scale. J Nurs Meas [Internet]. 1993[cited 2021 Dec 21];1:165-78. Available from: https://pubmed.ncbi.nlm.nih.gov/7850498/
17. Pesce RP, Assis SG, Avanci JQ, Santos NC, Malaquias JV, Carvalhaes R. Adaptação transcultural, confiabilidade e validade da escala de resiliência. Cad Saúde Pública. 2005;21 (2):436–48. https://doi.org/10.1590/S0102-311X2005000200010
18. Bossavie L. The effect of immigration on natives' school performance: does length of stay in the host country matter? J Hum Resour. 2020;55(2):733-66. https://doi.org/10.3368/jhr.55.3.1017-9151R2
19. Szcześniak M, Tułecka M. Family functioning and life satisfaction: the mediatory role of emotional intelligence. Psychol Res Behav Manag. 2020;13:223–32. https://doi.org/10.2147/PRBM.S240898
20. Rodríguez-Rodríguez J, Reguant-Álvarez M. Cálculo da confiabilidade de um questionário ou escala usando SPSS: coeficiente alfa de Cronbach. RISOS. 2020;13(2):1–13. https://doi.org/10.1344/reire2020.13.230048
21. Guerrero-Muñoz D, Salazar D, Constain V, Perez A, Pineda-Cañar CA, García-Perdomo HA. Association between Family Functionality and Depression: a systematic review and meta-analysis. Korean J Fam Med. 2021;42(2):172–80. https://doi.org/10.4082/kjfm.19.0166
22. Spaas C, Verelst A, Devlieger I. Saúde mental de jovens migrantes refugiados e não refugiados no ensino secundário europeu: o papel da separação familiar, estresse material diário e discriminação percebida no reassentamento. J Youth Adolesc. 2022;51:848–70. https://doi.org/10.1007/s10964-021-01515-y
23. Chen J, Xu D, Wu X. Buscando ajuda para problemas de saúde mental em Hong Kong: o papel da família. Adm Policy Ment Health. 2019;46:220–37. https://doi.org/10.1007/s10488-018-0906-6
24. Booysen F, Botha F, Wouters E. Conceptual causal models of socioeconomic status, family structure, family functioning and their role in public health. BMC Public Health. 2021;21(1):191. https://doi.org/10.1186/s12889-021-10214-z
25. Matos LA, Leal EMR, Pontes FAR, Costa e Silva SS. Poverty and family resilience in Belém-Pará. Psicol-Reflex Crit. 2021;34(1). https://doi.org/10.1186/s41155-021-00176-x
26. Silva ÍCP, Cunha KC, Ramos EMLS, Pontes FAR, Silva SSC. Family resilience and parenting stress in poor families. Estud Psicol. 2021;38. https://doi.org/10.1590/1982-0275202138e190116
27. Montes V. Deportabilidad y manifestaciones del sufrimiento de los inmigrantes y sus familias. Apuntes. 2019;46(84):5–35. https://doi.org/10.21678/apuntes.84.1014
28. Löbel LM. Family separation and refugee mental health: a network perspective. Soc Netw. 2020;61:20-33. https://doi.org/10.1016/j.socnet.2019.08.004
29. Matheson K, Asokumar A, Anisman H. Resilience: safety in the aftermath of traumatic stressor experiences. Front Hum Neurosci. 2020;14. https://doi.org/10.3389/fnbeh.2020.596919
30. Tafner DPOV, Nitschke RG, Tholl AD, Souza JB, Nabarro M. Powers and limits in the daily life of Haitian afro-descendant refugee immigrants. Ciênc Cuid Saude. 2023;21:e62578. https://doi.org/10.4025/ciencuidsaude.v21i0.62578
31. Nwankwo EM, Govia IO. Migration and the health of non-migrant family: findings from the Jamaica Return(ed) Migrants Study. J Immigr Minor Health. 2022; 24:689–704. https://doi.org/10.1007/s10903-021-01239-y
32. Vos SR, Clark-Ginsberg A, Puente-Duran S, Salas-Wright CP, Duque MC, Herrera IC, et al. The family crisis migration stress framework: a framework to understand the mental health effects of crisis migration on children and families caused by disasters. New Dir Child Adolesc Dev. 2021(176):41-59. https://doi.org/10.1002/cad.20397

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