INTERNALIZING AND EXTERNALIZING PROBLEM BEHAVIORS IN CHILDREN AND ADOLESCENTS MIGRATING THROUGH MEXICO

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Abstract: During a brief interview in migrant shelters in Mexico, an instrument exploring emotional and behavioral issues was administered to 49 children and adolescents on transit towards the United States. Seventeen girls and 21 boys. All were in the process of migrating to the United States border. All reported mild emotional and behavioral concerns. As expected, Internalizing problems were more prevalent, particularly amongst women. Male adolescent show significantly higher externalizing patterns of behavior. The need to address emotional and behavior problems in children an adolescent crossing Mexico on their journey to the United States is discussed pondering implications for mental health and social stability.

Keywords: Emotional issues, behavioral issues, migrant children, internalizing and externalizing patterns of behavior, migrant adolescents

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The social, economic and political conditions that prevail in the countries south of the border with the United States were aggravated as a result of the global crisis due to the COVID-19 pandemic, a condition that may be associated with the migration process of Mexicans and Central Americans to the United States (Torre-Cantalapiedra, 2021; Ward & Batalova, 2023). Despite possible recommendations from international organizations, the policy implemented by the United States (Title 42 immigration) involved expeditious expulsions to Mexico of migrants who entered its territory irregularly, regardless of whether these people required international or other protection. form of humanitarian protection. Many of the people who were deported remained indefinitely in the border cities of Mexico, with other contingents of migrants, waiting for their turn to begin asylum procedures before the US authorities (Torre-Cantalapiedra, 2021), or they were in transit through Mexico, without a defined situation. Although there are many complications related to the immigration process, the effects of immigration status on mental health are an important focus of attention.

This article explores common emotional and behavioral issues that migrant children present across their journey through Mexico. This is a diverse group of children of all ages from toddlers to adolescents. Relatively few studies have been conducted in recent years of passing migrants in Mexico; and considering the spurt of migration after the pandemic, emotional issues affecting them are worth exploring.

MIGRANT CHILDREN AND ADOLESCENTS

A significant number of children and adolescents, not reliably determined because of their illegal status, cross Mexico towards the northern border in search of the American dream.

In the Global Report on the Health of Refugees and Migrants, the World Health Organization (WHO, 2022), define a migrant as a person who moves from one place to another. Migration status is an important determinant of health and well-being, particularly children and adolescents who are most vulnerable to diseases, exploitation, and abuse. In addition, they often face xenophobia and poor living, housing, and working conditions.

By the end of 2021, approximately 36.5 million of children and adolescents migrated from their home-community for various reasons violence, poverty, natural disasters,

During their journey through Mexico there is often lack of social or family support, discrimination, forced separation from loved ones, feelings of hopelessness and the absence of opportunities (WHO, 2022). Indeed, on their pass-through Mexico, many migrants struggle for survival (Achotegui, 2009).

Children and adolescents in conditions of human mobility, whether they are refugees, asylum seekers or internally displaced persons, are exposed to serious dangers that threaten their well-being and security (UNICEF, 2022). In addition, displacement brings with it various stressful events, such as cultural losses that go along with leaving the place of origin, leaving family and/or loved ones behind, the abrupt change due to unplanned migration, the traumatic experiences during the journey (violence, crime, extortion, among others), the culture shock when arriving at the destination and several other conditions constituting risk factors that can make people more vulnerable to suffering some type of mental disorder. The adverse conditions faced by children and adolescents during migration have an impact on the social and emotional issues that need to be better understood (UNICEF, 2020).

**MIGRATION AND MENTAL HEALTH IN CHILDREN AND ADOLESCENTS**

The World Health Organization claims that the prevalence of disorders such as depression, anxiety, post-traumatic stress, risk of suicide and psychosis is higher in migrants or refugees in contrast to the population of receiving countries (WHO, 2021). In the same way, it has been pointed out that the presence of symptoms of depression and anxiety can be a consequence of the traumatic experiences lived in the country of origin and the new obstacles in the receiving country, so that migration brings with it different social disadvantages that affect the mental health of children and adolescents (Rodríguez et al., 2022).

Threats experienced by migrants and refugees have an impact on their mental health. For example, they suffer feelings of helplessness, anguish, sadness, nostalgia, fear of reprisals, guilt, shame, rejection, isolation among many other negative feelings (Castañer, 2017). This could be particularly more devastating for children and adolescents.

A systematic review by Scharpf et al (2021), examined factors contributing to the mental health of children who were exposed to forced migration. Their findings were rather inconsistent, with most of the evidence regarding adolescents and limited information on early and middle childhood. Adolescents older than 16 years had higher levels of internalizing symptoms. Concerning sex differences, the evidence provides a more consistent picture. Studies indicate that girls have a higher risk of internalizing problems compared to boys who exhibit more externalizing problems. As infants, boys are at greater mental health risk, while in adolescence, girls are at greater risk of such problems.

**INTERNALIZING AND EXTERNALIZING PATTERNS OF BEHAVIOR**

Internalized patterns are characterized by emotions and expressions inwardly toward the individual. The often and represent over control and inner-directed pattern of behavior examples include social withdrawal, depression, anxiety, and somatization problems (Flores & Jiménez, 2017; Navarro-Obeid, et al., 2022). Externalized behavior patterns are directed outwardly toward the social environment and can be characterized as problems of
control, manifest upon external stimuli and difficult situations. These conducts are easily observable such as aggression, disruption, oppositions and defiance and impulsivity and hyperactivity (Cicchetti & Toth, 1991). In a developmental perspective these problems may persist in adulthood (Zelazo 2013).

Both internalizing and externalizing behaviors are colored with emotions. Externalized behaviors usually are associated with anger, frustration, anxiety, and others. Whereas internalized behaviors are characterized by depression, anxiety, anguish, and preoccupation.

Some studies (Buchmuller et al., 2018; Garnica, et al., 2019; Gutmann, et al., 2019; Verhülsdonk, et al., 2021), have reported a higher prevalence of mental health conditions, such as post-traumatic stress disorder, depression or the anxiety that are associated with the conditions of human mobility. However, the empirical evidence on the presence of other symptoms is limited.

Belhadj Kouider et al. (2014, 2015), reviewed the emotional and behavioral problems of migrant children and adolescents in Europe and American countries (United States and Canada), reporting that these migrants have an increased risk of internalizing problem behavior, and that in general, they were at risk of mental disease. They also documented the psychological stress they endure and the usual lack of preventive or remedial measures in this population. They concluded that migrant children have higher risks of internalized problems.

In terms of sex, immigrant girls show more internalized problems, while boys express more externalized patterns of behavior, although there are not major differences in the sample of migrant children compared to their native peers in receiving countries. And more behavioral problems can be found among migrant girls in comparison to non-migrant girls (Belhadj Kouider et al., 2014).

Although the data is illustrative of the presence of emotional and behavioral problems in migrant children and adolescents, the information comes from other countries. Very few studies conduct research on the migratory trajectory in Mexico. Two reasons that explain limited information of migrant children in Mexico, is their constant mobility towards the north and the limited access to mental health services. Thus, psychological, psychiatric, and other problems go unnoticed.

Considering the above, this study explores a broad spectrum of emotional and behavioral issues in migrant children that have been classified in the classical dichotomous category of internalized and externalized behavior patterns. Studying emotions and patterns of maladaptive behaviors in a migrant population faces important challenges, such as trying to understand and adequately interpret the affective dynamics of people living in different cultures. According to Davidson and Milligan (2004), cultural, social, gender, and religious differences influence how emotions are encoded, which is crucial for the performance of transnational subjects observed in their social competence. It is crucial to make the assessment in a population with social disadvantages, as is the case of human mobility, especially when they have experienced factors associated with migration and the uncertainty resulting from the pandemic crisis.

**METHOD**

This is an exploratory field study aimed to assess emotional and behavioral indicators of wellbeing in migrant children and adolescents while in transit through Mexico. Qualitative and quantitative techniques were used to collect data. First, investigators established rapport through an open interview with migrant children and adolescents, and
they used a checklist to gather participants’ perceptions of emotional and behavior issues.

**PARTICIPANTS**

A total of 49 children and adolescents agreed to participate in informing them about the purposes of the interview and the confidential character of the information gathered. 17 (35%) were girls and 32 (65%) boys. Mean age of participants was 13.44 (SD = 2.63). There was a total of 21 (43%) children under 12, and 28 (57%) adolescents 12 years or older.

When parents were present, parental consent was obtained. Interviews were conducted in two shelters for migrants, one in Mexico City, the other in Tijuana Baja California. 44% were Mexicans from different states and 66% were foreigners coming from central and South America and the Caribbean. Five participants adolescents traveled alone.

**INSTRUMENT**

Initially, an approach was made to the participants through an informal interview to explore disposition to engage. Data for the emotional and behavioral issues was collected with the use of a check list. Check list was elaborated by selecting items related to emotional behavioral problems form Detector! (Sánchez 2002); a computer-based program to explore 25 factors of the child's general development. It aims to elicit yellow or red alerts in this general factor (reading, impulsivity, aggression) and it may suggest up to 20 diagnostic hypotheses that need to be confirm or rule out through appropriate psychodiagnosics procedures. Indeed, Detector is an instrument for screening common general concerns, of ample use in Mexico an acceptable psychometric property (González y Molina, 1995, into Sánchez-Escobedo, 2003).

The original yes/no response format was transformed to a 4-point Likert scale. The check list was pilot tested for clarity and purpose. Content Validity coefficient was .99. Clarity Index was .99. Data from this expert judge’s evaluation allowed specific items to assess two broad dimensions. Internalizing issues, organic in nature and emerging from within the person, and externalizing issues assumed to be primarily due to adverse environmental stimuli. The final checklist had 36 items divided in two major dimensions: externalizing and internalizing pattern of problem behaviors with two cluster factors each. Internalizing patterns of behaviors contained 21 items clustered in two subscales: anxiety and depression. Crombach Alpha coefficient is .81, .68 and .76 for subscale anxiety and depression. Externalizing pattern of behaviors contained 15 items clustered into two subscales: impulsivity-hyperactivity and aggression-opposition. Crombach Alpha coefficient is .88, .67 and .85 for subscales respectively.

Investigators and assistants collecting information were all experienced clinical psychologists and used a free format to adapt for language, age, and cultural variations of participants.

**DATA ANALYSIS**

Scores were assigned null (never) to three (always) per item and the total of each dimension was weighted to address the differences in scale length. The sum of the score of the items corresponding to each dimension and subscale was estimated, from which the means and deviations weighted to the number of items were calculated. A two-way ANOVA was applied to identify the effect of demographic variables on the internalizing and externalizing dimensions, as well as on the four subscales (anxiety, depression, impulsivity-hyperactivity, and aggression-opposition). All analyzes were performed
using Jamovi 2.2.5 software.

**ETHICAL CONSIDERATIONS**

The present research took up and adhered to the ethical norms regarding data handling and publication of information, contemplated by the American Psychological Association (APA, 2010) and the Mexican Society of Psychology (2010). Considering the vulnerability of migrant children and adolescents, investigators sought to meet the criteria of competence and honesty, informed consent for the research participants, as well as avoidance of coercion and deception.

**RESULTS**

To compare both scales with different number of items, weighted means were calculated by dividing obtained means by the number of items in each subscale. A greater presence of emotional patterns compared to behavioral ones is observed, the difference was statistically significant; in internalizing, the average value observed can be considered moderate level and low in externalizing. Table 1 depicts results.

<table>
<thead>
<tr>
<th>Pattern of behavior</th>
<th>Subscales</th>
<th>N items</th>
<th>Weighted Mean</th>
<th>Weighted SD</th>
<th>t de Student</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing</td>
<td>Anxiety</td>
<td>12</td>
<td>1.10</td>
<td>0.386</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>9</td>
<td>1.07</td>
<td>0.613</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalizing</td>
<td>Impulsivity-Hyperactivity</td>
<td>8</td>
<td>0.79</td>
<td>0.577</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aggression-Opposition</td>
<td>7</td>
<td>0.64</td>
<td>0.636</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Summarizes scores for each subscale in the total sample.

Finally, a two-way analysis of variance per dimension was carried out to explore the interaction between age and sex in internalizing and externalizing patterns of behavior and per subscales.

There are differences in the dimensions depending on the age and sex. The girls tend to show fewer internalizing patterns of behaviors than boys who also exhibit more externalizing patterns of behavior. But in adolescents, the women have more internalizing than men and the scores of externalizing are similar between men and women (Table 4). The same trend of results is observed for the subscales by dimension (Table 5).

In general, the extent of the effect of the demographic variables was low. Only the main effect of age and the interaction on internalizing dimension and anxiety and depression were significant (the partial eta squared value is taken as an indicator of the size effect).

**DISCUSSION**

This exploratory study was aimed at investigating the mental health status of migrant children and adolescents, based on the detection of internalized behavioral patterns such as anxiety and depression, and externalized behavioral patterns such as aggression-opposition and impulsivity-hyperactivity.

The results demonstrate the presence of several emotional and behavioral issues in
<table>
<thead>
<tr>
<th></th>
<th>Anxiety</th>
<th>Depression</th>
<th>Impulsivity-Hyperactivity</th>
<th>Aggression-Opposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>0.302*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsivity-Hyperactivity</td>
<td>0.384*</td>
<td>0.391**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression-Opposition</td>
<td>0.527**</td>
<td>0.450**</td>
<td>0.721**</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Pearson's correlation matrix between clusters.
Note: * < .05; ** < .01; *** < .001.

<table>
<thead>
<tr>
<th>Patterns of behavior</th>
<th>Age groups</th>
<th>Sex</th>
<th>Weighted Mean</th>
<th>Weighted SD</th>
<th>η² Age group</th>
<th>η² Sex</th>
<th>η² Age group*Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing</td>
<td>Children</td>
<td>Female</td>
<td>1.17</td>
<td>0.416</td>
<td>0.013</td>
<td>0.160**</td>
<td>0.287**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1.32</td>
<td>0.472</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>1.76</td>
<td>0.337</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.90</td>
<td>0.336</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalizing</td>
<td>Children</td>
<td>Female</td>
<td>0.58</td>
<td>0.496</td>
<td>0.001</td>
<td>0.005</td>
<td>0.020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.83</td>
<td>0.582</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>0.78</td>
<td>0.780</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.70</td>
<td>0.518</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. A two-way ANOVA to explore interaction between sex, age and pattern of behaviors into two dimensions.
Note: ** p > .01; the criterion of homogeneity of variances p > .05 is satisfied for two-way ANOVA.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Age group</th>
<th>Sex</th>
<th>Weighted Mean</th>
<th>Weighted SD</th>
<th>η² Age group</th>
<th>η² Sex</th>
<th>η² Age group*Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Children</td>
<td>Female</td>
<td>1.01</td>
<td>0.247</td>
<td>0.015</td>
<td>0.037</td>
<td>.167**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1.19</td>
<td>0.537</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>1.45</td>
<td>0.225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.95</td>
<td>0.310</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Children</td>
<td>Female</td>
<td>1.09</td>
<td>0.628</td>
<td>0.007</td>
<td>0.085</td>
<td>.126**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1.16</td>
<td>0.682</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>1.66</td>
<td>0.567</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.82</td>
<td>0.448</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsivity-Hyperactivity</td>
<td>Children</td>
<td>Female</td>
<td>0.65</td>
<td>0.615</td>
<td>0.000</td>
<td>0.010</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.91</td>
<td>0.407</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>0.80</td>
<td>0.822</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.79</td>
<td>0.570</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggression-Opposition</td>
<td>Children</td>
<td>Female</td>
<td>0.50</td>
<td>0.432</td>
<td>0.001</td>
<td>0.001</td>
<td>.023</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.75</td>
<td>0.878</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Female</td>
<td>0.75</td>
<td>0.815</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>0.60</td>
<td>0.526</td>
<td></td>
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</tr>
</tbody>
</table>

Table 5. A two-way ANOVA to explore interaction between sex, age and pattern of behaviors into the subscale.
Note: ** p > .01; the criterion of homogeneity of variances p > .05 is satisfied for two-way ANOVA.
migrant children traveling across Mexico towards the northern border. This age cohort has been poorly investigated since there are several logistical difficulties involved. Children and adolescents are in constant mobility, they lack services during their journey, their illegal status makes them unwilling to participate in research studies, and in many cases, they hesitate to answer truthfully to our questions because they fear deportation from the country.

A greater presence of internalized-type patterns was observed in both children and adolescents, these scores being of a moderate level. These preliminary results are consistent with what has been reported in previous studies that indicate that there is a high risk of internalized problems in migrant children and adolescents (Belhadj Kouider et al., 2014, 2015). Depression and anxiety in these groups may be associated with distress, concern, internal suffering, and insecurity resulting from traumatic experiences in the country of origin or during the migration journey, new obstacles in the receiving country, separation from their families or to the unstable dynamics with the family that accompanies them, among other conditions that constitute disadvantages and high vulnerability (Castañer, 2017; Rodríguez et al., 2022; Scharpf et al., 2021).

Regarding the pattern of externalized behavior, the results of this study indicate low scores for both subscales of the instrument in this dimension, in this regard other studies have found similar data. It is even indicated that these values do not differ with respect to non-migrant children and adolescents (Belhadj Kouider et al., 2014). Although the conditions of vulnerability associated with human mobility contribute to the presence of behavior disorders, the evidence seems to point that there is not such a direct affectation as it is observed on emotional well-being.

It is important to note that the data from this study showed a positive relationship between the two measured dimensions. Fortunately, internalizing patterns so behavior has better prognosis externalizes behaviors and we hope these are transitory and eventually they could be solved when the migrant journey concludes successfully. Of course, resolution of the issues will be endangered if social and contextual negative effects await at their destination. On the other hand, children and adolescents showing externalizing patterns of behaviors are of greater concern as these behaviors predict future maladjustment in new social settings and such symptoms are associated with other risk behaviors such as substance abuse, criminal behavior, and violence. Although the scores obtained in the externalizing dimension are of a low level, it should be considered that they may also involve difficulties for adaptation, integration, and socialization, in addition to the fact that they may worsen when combined with internalized patterns. More research is required in this regard, including the measurement of other factors such as migration duration, ethnic group or parental practices as concurrent variables that can explain the presence of mental health symptoms in migrant children and adolescents.

In relation to the prevalence of symptoms by age and sex, only a significant effect of the sex variable was observed, with women presenting higher scores compared to men. These data are consistent with the literature, which states that women in migration conditions are more likely to internalize their emotional difficulties (Buchmuller et al., 2018; Belhadj Kouider et al., 2014; Scharpf et al., 2021). The evidence points to the need to carry out research with a gender perspective, where it is considered that the context of migration can be experienced differently by men and women; therefore, the intervention strategies must consider this variable.
A significant interaction effect between sex and age was found. It was observed that the presence of behavior patterns in the subscales of the internalized dimension was greater in adolescent women. In this regard, other authors have reported an increase in symptoms associated with depression or anxiety during adolescence (Nivard et al., 2017), particularly, at the age of 15 and above that age (Wolff & Ollendick, 2006). This finding is consistent with the universally accepted fact that young boys have more social and emotional issues, although in later adolescence this tendency changes towards a higher prevalence in girls.

One of the limitations of this study involves having used self-report as a method for data collection, since the results may be affected by the possibility that children and adolescents are not able to identify the symptoms they present or, deny behaviors considered unwanted, such as hitting or yelling. For this reason, it is suggested to incorporate other techniques, such as direct observation.

This is a first effort, an exploratory study with a limited sample of migrants. However, results should call for more studies and concern about this group of children and adolescents facing a vulnerable, hostile, and sometimes dangerous situation. More research is needed to further understand their plight and of course Mexican authorities should consider the provision of services for migrant children that must be available on their journey to the United States to avoid reducing the possibilities of social turmoil and other consequences of not dealing with this mental health situation in a timely manner.

REFERENCES


