

## IMPACT OF THE MIGRATION PROCESS ON SOCIOCULTURAL ASPECTS AND ON TWO NEUROPSYCHOLOGICAL PROCESSES

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**Abstract:** Objective: Examine the cultural adherence and the efficiency of inhibition and flexibility of a group of irregular migrants in transit through Sonora, Mexico. Design: Ex post facto exploratory with a non-probabilistic sample. Instruments: Sociodemographic Interview; Two-Dimensional Acculturation Scale and a Stroop-type test. Sample: 135 irregular migrants with an age of  $M=33.33$  years; 85 men and 50 women; 75 Mexicans and 60 foreigners and an education of  $M=7.1$  years. Results: There was high adherence towards the Hispanic Area and low adherence towards the Non-Hispanic Area. There were no differences in the inhibition indicators, however, in the flexibility indicators, differences were found by age groups, gender, place of origin and whether they made a travel plan. Conclusions: The results are from irregular migrants in transit. More studies are needed to compare populations that are in different phases of migration.

**Keywords:** Irregular Migration, Acculturation, Inhibition, Flexibility.

## INTRODUCTION

The cultural environment has an impact on the development of individuals' psychological capacities.(Berry & Dasen, 2019). To comprehensively address these cognitive abilities, it is convenient to consider the cultural aspects in which people develop.

That is why this work seeks to examine the characteristics of cultural adherence and the characteristics of the indicators of two neuropsychological processes related to behavioral adjustment in a group of irregular migrants in transit in the assumption that, to insert a new social environment, it is crucial to have attitudes that favor integration into the new cultural context, to be flexible, as well as to have the ability to suppress doing what is not aimed at achieving an objective.

The migrations of individuals have gone hand in hand with the history of humanity and are due to the search for better living conditions.(McNeill, 1984). In 2020 alone, it was estimated that there were around 281 million migrants worldwide.(UNDESA, 2020). Of them, around 107 million are irregular migrants(Runde et al., 2019), that is, they are people who do not have legal status to transit or settle in a country(Sironi et al., 2019). In this context, Mexico is the second country of origin for migrants worldwide, just below India, and the flow of people it maintains with the United States is the largest in the world.(UNDESA, 2020).

This irregular transit of people has economic, political and cultural connotations, which requires regulations from national and international organizations to regularize the transit of people to ensure their physical and psychological integrity.(McAuliffe & Ruhs, 2018).

Examining people's attitudes and the impact that migration has on their psychological functions is an area of interest for mental health professionals and other areas of social sciences. However, irregular migration deserves special interest since people who experience it are targets of prejudice and discrimination. (Schemer, 2012; Stephan et al., 2005), they are usually considered as delinquents or criminals(Furman et al., 2012; Provine & Doty, 2011), they become vulnerable to organizations dedicated to human trafficking (O'Leary, 2008, 2009), they do not have easy access to health services or employment and in those cases in which they manage to cross an international border (for example that of the United States) they will be at latent risk of being deported. (Menjívar, 2016).

During irregular migration, people constantly move from one sociocultural context to another and need to implement different adaptive skills that allow them to

adjust to the demands of their context and their priorities, as they face new communication patterns.(Gil, 2016), eating habits(Hun et al., 2019)and to all those practices that represent inserting oneself into a new culture.

The attitudes and behaviors that people carry out when entering a new social context are defined as acculturation.(Berry, 2009; Redfield et al., 1936; Ryder et al., 2000). This phenomenon was addressed by Boas(1920) who refers to contextual changes throughout history and how these changes impact the perception and culture of people, regardless of their race or origin. Later, this concept was used to refer to the situation that occurs when an individual adapted to a culture is inserted into another social group different from that of origin, which causes modifications of the original cultural pattern of the individual and eventually of the receiving group.(Redfield et al., 1936).

For his part, Berry(2009) proposes four types or strategies of acculturation, namely: Assimilation, Integration, Segregation and Marginalization. Assimilation occurs when an individual or a minority group (non-dominant) settles into another larger group (dominant) and undoes its culture. Integration consists of the prevalence of the culture of the non-dominant group while being part of the dominant group. Segregation occurs when the dominant group imposes itself on the non-dominant group, keeping the latter passive and peripheral. Finally, in marginalization, non-dominant groups do not exercise the actions of their culture of origin nor do they get involved in those of the dominant group.

This systematization of people's adaptation maintains that the greater the degree of assimilation or cultural integration, the greater the probability that these people will adapt favorably in a new environment and vice versa, that is, the less assimilation or integration there is or the strategy aims towards

marginalization or segregation, the adaptive process will be difficult and disintegrated with respect to the new environment.

Among the different approaches to the phenomenon of acculturation, there are some that focus on variables such as the use and mastery of language.(Felix-Ortiz et al., 1994; Hazuda et al., 1988; Marín & Gamba, 1996; Padilla & Perez, 2003)most rely on a single indicator scale and fail to consider biculturality. Therefore, the multidimensional and multifaceted aspects of the complex phenomenon of cultural identity have not been adequately appreciated or assessed. Latino(a, attitudes towards eating habits(Hun et al., 2019), preference towards the Hispanic or non-Hispanic sphere(Marin & Gamba, 1996; Norris et al., 1996), tendency towards the "Anglo" group(Wong-Rieger & Quintana, 1987)or, tendency towards the "Mexican" group(Cuellar et al., 1995; Szapocznik et al., 1980).

In this study, the concept of acculturation is approached from cultural adherence based on the use and perceived mastery of the language and its preference towards the Hispanic and non-Hispanic sphere.

As noted above, migrants in transit need to constantly adapt to the environment, and they must also be able to face and overcome difficulties, inconveniences and risk situations throughout their journey; Therefore, it is crucial to implement problem-solving strategies that allow them to achieve an objective or goal.

Executive Functions (EF) refer to psychological processes(Stuss, & Alexander, 2000)distinct processes related to the frontal lobes can be differentiated which converge on a general concept of control functions; (3that allow goal-directed behavior to be programmed(Lezak et al., 2012)or for troubleshooting (Godefroy, 2003). These EFs include the skills of initiative, planning,

inhibition, flexibility, monitoring and verification.(Anderson et al., 2002; Miyake et al., 2000; Stuss, 1992).

The anatomical substrate of the EF is found in the frontal lobes of the brain, specifically in the dorsolateral and ventral cortices. (Fuster, 2000; Stuss & Levine, 2002). If there are lesions in these cortical areas, the patient will present alterations in the control of attention, monitoring of behavior, integration of information and in the organization of behavior.(Anderson et al., 2001; Lezak et al., 2012).

In this study, two components of EF that are crucial for problem solving will be addressed: cognitive inhibition and flexibility. Cognitive inhibition refers to the psychological process that makes it possible to suppress an action(Aron et al., 2004; Dempster, 1991; Lustig et al., 2001; van Boxtel et al., 2001); while flexibility refers to the ability to modify behavior depending on the requirements of the environment.(Allport et al., 1994; Anderson, 2002; Jersild, 1927; Jurado & Rosselli, 2007; Monsell, 2003).

Despite the existence of evidence that shows the relationship and influence between people's culture and their psychological development; It is pertinent to generate studies that focus on examining and analyzing this relationship in people who are in the migration process.

The exploration of the relationship between cultural adaptation and neuropsychological functioning has been carried out using the Wisconsin Card Sorting Test (WCST).(Grant & Berg, 1948)and the Acculturation Scale for Mexican Americans (ARSMA) seeking to observe the impact on the performance of the Spanish version of the WCST in a population of Mexican American adults.(Coffey et al., 2005); examining the relationship between language variables (English as a first or second language) with neuropsychological

variables such as attention, memory and non-verbal processing speed(Boone et al., 2007); determining attention and information processing with an intelligence scale, the Trace Mapping Test (TMT)(Lezak et al., 2012), a Stroop-type test(Comalli et al., 1962), a test of listening abilities and its implications with acculturation using the ARSMA scale(Razani et al., 2007); analyzing the relationship between acculturation and place of origin and language proficiency(Proctor & Zhang, 2008; Rosselli et al., 2002)and on the impact of acculturation on verbal comprehension and processing speed(Arentoft et al., 2012).

The present study seeks to determine the cultural adherence towards the Hispanic or non-Hispanic sphere and the level of efficiency of two components of executive functions in a group of migrants in transit through the State of Sonora, Mexico. It is expected to find differences in cultural adherence according to the demographic variables of the study participants, as well as a relationship between cultural adherence and efficiency in two components of executive functions.

## **METHOD**

### **DESIGN**

This is a study with an ex post facto exploratory design with a non-probabilistic sample selection.(Hernández et al., 2010).

### **SAMPLE**

The sample was made up of 135 people, 85 men and 50 women (63% and 37% respectively); with an average age of 33.33 years (min=12 and max=78); 75 were of Mexican origin (55.6%) and 60 were foreigners: 32 from Honduras, 13 from Guatemala, 4 from El Salvador, 4 from Cuba, 3 from Nicaragua, 3 from Venezuela and 1 from Peru. The average number of years of schooling was 7.1. All participants in the sample are irregular

migrants. The inclusion criteria were that the participants were migrants in transit, that they were able to read and identify colors and in the case of minors, there must be informed consent from a responsible adult, who in this work were the parents of family.

## PROCEDURE

The search for participants for the sample was carried out in the municipalities of Hermosillo and Nogales in the State of Sonora. In the municipality of Hermosillo, we went to the San Luis Gonzaga Dining Room and Dispensary for Migrants, as well as to the train tracks surrounding the aforementioned dining room to invite people to participate in the study, since there it is possible to find people in He waits for the train to pass by to continue his journey. In order to have access to the migrants, authorization was requested from the person responsible for the dining room to apply the study instruments. Once you had authorization to collect data, you attended the dining room from 11:00 am, which is when the migrants begin to arrive, and until 2:00 pm since that is when they leave. The application was suspended when their food was served and once they finished eating, data collection continued right there.

On the other hand, in the municipality of Nogales, Sonora, contact with migrants was made at the San Juan Bosco migrant shelter. In a similar way as happened in the dining room, first of all, those responsible for this place were contacted in order to have access to the migrants. Once they had authorization from the authorities to attend and apply the study instruments, they went to to the shelter around 5:00 pm since it was the time the migrants arrived for dinner and left around 8:00 pm since it is the time they go to sleep.

Already individually with the participants, the objectives of the study were explained to them, that their participation was voluntary,

that the information they would provide would be handled confidentially and only those responsible for the research would have access to it. Once they agreed, they were asked to sign a letter of informed consent. Subsequently, we proceeded to apply the sociodemographic interview, then to answer the acculturation scale and finally the Stroop type test. The total time used to apply the letter of consent and the instruments was approximately 30 minutes.

## INSTRUMENTS

**Informed consent letter.** In this letter they were informed about the objectives of the work and that the data they provided would be handled confidentially and for exclusively scientific purposes. If they accepted participation, the migrants had to sign the letter.

A sociodemographic interview was applied to obtain information such as age, gender, place of birth, education of the participant and their immediate family members, reasons for migration, occupation and salary before migrating, whether they are traveling alone or accompanied, medical and medical history. their immediate family members, if they required medical attention on their trip, consumption and substance use habits, incidence of learning problems, commission of crimes and legal problems and if they had school problems.

To determine cultural adherence, the Marín and Gamba Acculturation Scale was used.(nineteen ninety six), which includes three subscales: Language Use, Language Competence, and Electronic Media Use. This is a Likert-type scale that is made up of 24 items, of which 12 refer to the Hispanic Area and 12 to the Non-Hispanic Area. Responses are scored from 1 to 4, where 1 corresponds to “almost never” or “very bad” and 4 corresponds to “almost always” or “very good.”

The level of adherence is determined by calculating the average of the scores of the 12 items in each area, in which a value of 2.5 is considered as a cut-off point, where scores above that value will indicate high adherence to the Hispanic Area and Values below will indicate low adherence to the Hispanic Scope.

If values above 2.5 are obtained in both areas, it will be an indicator of biculturalism. (Marin & Gamba, 1996).

The flexibility and inhibition indicators were obtained using a Stroop-type test. (Ramírez et al., 2012) participated in this study. Participants were recorded in a constant routine protocol for 29 h. Body temperature was recorded every minute, and every 100 min participants completed scales of sleepiness and tiredness and responded to a Stroop task with shifting criteria. This task includes a chart with 48 colors printed with incongruent names. A random half of the words had a point on the left. Participants were instructed to do four actions: (i, which consists of a sheet with 4 lists of 12 words each. The words name four colors which are RED, GREEN, BLUE AND BROWN. The words are printed in a color incongruent to the color they name and 6 of them are randomly marked with a dot on the left side. The test consists of four tasks viz. In the first, participants are asked to read the 48 items of the test. In the second they are asked to name the color in which the words are printed. In the third task, they are asked to read the words that are marked with a dot and those that are not marked with a dot must say the color in which they are printed. In the fourth task, they are asked that in the words that are marked with a dot they must say the color in which they are printed and they must read the words that are not marked with a dot. The inhibition indicators will be obtained from the times and errors of the first and second task and the flexibility indicators from the third and fourth task.

## ANALYSIS OF DATA

Statistical analyzes were performed using SPSS 22. Descriptive analyzes were performed for sociodemographic and frequency data. To observe differences between dichotomous groups, “t” tests for related groups will be used. To determine the differences between more than two groups, Analysis of Variance and Post-Hoc Tests will be used with a significance level of 0.05.

## RESULTS

### SOCIODEMOGRAPHIC INFORMATION

Table 1 shows the percentages of the responses that were made in the sociodemographic information interview, where it is highlighted that more than half of the sample did not plan their trip, the majority of them answered that they do not mind living with people of different origins. other countries and report not having participated in the commission of crimes, nor engaged in antisocial behavior such as the consumption of illicit drugs.

	% No	% Yes
Have you planned your trip?	54.82	45.18
Does it bother you to live with people from other countries?	97.73	2.27
Are you accompanied by someone?	35.64	64.36
Do you know someone close to you who has decided to migrate?	37.98	62.02
Have you received any medical treatment since leaving your country?	53.79	45.84
Have you used any illegal drugs?	73.64	26.36
Have you had any altercations with authority recently?	92.25	7.75
Have you been arrested for any crime?	89.15	10.85
Have you been suspended or expelled from your school/work for indiscipline?	86	14

Table 1. Sociodemographic indicators

Own elaboration

## REASONS FOR DEPARTURE

Table 2 shows the percentages reported on the reasons for leaving where security and the search for work or improving economic income prevail.

Reasons	%
Security	50.5
Work/Improve Income	29.7
Family reasons	9
Others	10.8
Total	100

Table 2. Reasons for leaving

Own elaboration

## DISEASES IN THE MIGRATORY PROCESS

Another aspect that was considered important to know is whether they suffered from any illness since leaving their place of origin. 53.3% answered that they had not suffered any illness during their journey and of the remaining 46.7%, 23% indicated that they had a headache and 7% reported suffering from insomnia.

## FAMILY MEDICAL HISTORY

In addition to knowing the medical history of the migrants, the health conditions of the immediate family were investigated. 28.7% of the sample reported having a sick family member, the most mentioned pathology was depression with 65.5% of the cases, followed by neurodegenerative disorders (24.1%) and one reported case of diabetes. To the question about which family member suffers from these diseases, the response was primarily from mothers with 44.8%, followed by fathers and grandmothers.

## CULTURAL ADHERENCE

### INTERNAL CONSISTENCY OF THE INSTRUMENT

Analyses were carried out to determine Cronbach's Alpha coefficients for the Hispanic and Non-Hispanic spheres, finding  $\alpha=.76$  for the Hispanic sphere and  $\alpha=.58$  for the non-Hispanic sphere. Similarly, alpha coefficients were calculated for each of the subscales in the areas mentioned above, where low internal consistency was observed in the Language Proficiency subscale for the Non-Hispanic Area ( $\alpha=.47$ ), as well as for the Language Use subscale for the Hispanic Environment ( $\alpha=.57$ ). On the other hand, a high internal consistency was found in the Language Use for Non-Hispanic Environment subscales ( $\alpha=.62$ ); in the Language Proficiency subscale for the Hispanic Area ( $\alpha=.91$ ) and for the Use of Electronic Media subscale for both areas ( $\alpha=.80$  and  $\alpha=.80$ , respectively).

According to the Two-Dimensional Acculturation Scale (Marín & Gamba, 1996), the cut-off value to determine adherence towards the Hispanic or non-Hispanic sphere is 2.5. In this sense, Table 3 shows the results obtained from the sample, which showed a high adherence to the Hispanic environment compared to the non-Hispanic environment, obtaining  $aM=1.66$  for the non-Hispanic area and  $aM=3.56$  for the Hispanic area.

Ambit	N	M	OF	IS
Hispanic	134	3.56	0.42	0.04
non-hispanic	133	1.66	0.57	0

Table 3. Indicators of the Acculturation process

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

These results were consistent when grouped by age ( $H=3.47$ ;  $NH=1.65$ ), gender ( $H=3.5$ ;  $NH=1.55$ ), place of origin ( $H=3.56$ ;  $NH=1.66$ ), years of schooling ( $H=3.3$ ;  $NH=1.74$ ), yes there was a plan for the trip ( $H=3.55$ ;  $NH=1.67$ ), whether traveling alone or accompanied ( $H=3.52$ ;  $NH=1.72$ ) and for reasons of departure ( $H=3.53$ ;  $NH=1.7$ ).

From the results obtained, it can be observed that the migrants who participated in this study prefer to speak the Spanish language and report mastering it more, in addition to using media with entertainment programming in that language more frequently.

### INDICATORS OF COGNITIVE INHIBITION

The difference between the times of the first and second tasks, which correspond to reading the stimuli and saying the color in which the words are printed, respectively, are considered indicators of the inhibition process. The fact that the execution of the second task is slower than that of the first task indicates the implementation of the inhibition process, given that it requires a greater amount of time than that used in reading (first task). By suppressing the predominant action of reading and instead mentioning the color of the ink of the stimuli, this is why the time to complete the task of reading the words is taken as a reference. The shorter the amount of time between tasks, the greater the efficiency of the inhibitory process.

Finally, the total errors that people make when reading the words instead of saying the color in the second task are also indicators of inhibition, either in isolation or consecutively, since, as mentioned above, the participants must suppress the tendency to execute an automated or preponderant action (reading) and instead they must mention another quality of the stimulus presented (color).

Exploratory analyzes were carried out to know the indicators of inhibition between different variables in the sample such as age, gender, place of origin, years of schooling, whether or not there was a travel plan, whether they traveled alone or accompanied and for the reasons. exit.

Table 4 describes the difference in times to complete the first two tasks, and Table 5 describes the average errors of reading instead of saying the ink color of the stimuli in the second task.

Task	N	M (Sec)	OF	IS
Between first and second	130	35.06	15.34	1.35

Table 4. Difference in times to complete tasks

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

Mistake	N	M	OF	IS
Reading	131	4.83	5.04	0.44

Table 5. Total reading errors in the second task

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

For these results, comparisons were made of the differences in the times to complete the first two tasks, as well as the number of reading errors in the second task by age, gender, years of schooling, whether or not there was a travel plan, if you are traveling alone or accompanied and for the reasons for departure. From these analyzes differences were only found when the sample was compared by place of origin, with the group of foreigners being the ones that had the smallest difference in time to complete the first two tasks. Table 6 shows the results of the “t” test for related groups of the difference in times between the first two tasks and the place of origin.



Birthplace	N	M (Sec)	OF	IS	F	Next.	t	gl
Mexicans	70	36.26	17.75	2.12		4.8	0.03	0.96
Foreign	60	33.66	11.94	1.54				128

Table 6. t-test of the difference in times to complete the task by place of origin

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

## FLEXIBILITY INDICATORS

Two types of errors committed during the execution of the third task (reading the words marked with a dot and saying the colors of the ink in those that are not marked with a dot) and the fourth task (saying the color of the words marked with a dot and read those that are not marked). The first type of error will be that the participants did not change their performance based on the items indicated or not indicated with a dot. These errors refer to change errors. The second type of error will be in which the participants do not change their performance and continue reading or naming the colors of the items continuously based on the words indicated or not indicated with a dot. These errors refer to consecutive errors.

In the third task, which consists of reading the words marked with a dot and naming the color of the words that are not marked, the errors that were considered indicators of flexibility were those in which the participants read an item that was not marked with a dot. a point after a reagent marked with a dot (change errors), as well as those in which the following reagents are continued reading as long as the latter are not marked with a dot (consecutive errors).

In the fourth task, which consists of naming the color of the reagents marked with a dot and reading those that are not marked, the errors that were considered indicators of flexibility were those in which the participants named the color of a reagent that was not marked. marked with a dot after a reagent marked

with a dot (change errors), as well as those in which the colors continue to be named in the following reagents as long as the latter are not marked with a dot (consecutive errors).

In the Table 7 shows the number of reading-change errors in the third and fourth tasks.

Error type	N	M	D.S.	IS
Reading (3rd Task)	130	3.55	3.36	0.29
Reading (4th Task)	127	5.72	4.19	0.37
To say the color (3rd Task)	130	2.37	2.32	0.2
To say the color (4th Task)	127	4.98	4.5	0.4

Table 7. Errors in reading and saying the color change in the third and fourth tasks.

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

In the Table 8 shows the consecutive reading errors in the third and fourth tasks. Subsequently, consecutive errors in saying the colors of the reagents are described.

Consecutive error type	N	M	D.S.	IS
Reading (Third task)	130	1.01	1.70	0.15
Reading (Fourth task)	127	1.94	2.29	0.20
To say the color (Third task)	130	0.42	1.17	0.10
To say the color (Fourth task)	127	1.17	1.79	0.16

Table 8 Consecutive errors in reading and saying the color in the third and fourth tasks

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

HEperformed statistical analyzes to compare the number of change errors and consecutivo errors by age, gender, place of origin, years of schooling, whether or not there was a travel plan, whether they traveled alone or accompanied, and by the reasons for departure.

Statistical differences were found when the number of change errors was compared by age groups; by place of origin and whether the trip was planned or not. On the other hand,

there were differences when the number of consecutive errors by gender was compared. In Table 9 The number of reading errors is shown instead by age groups in the third task.

Error type	Age	N	M	D.S.	IS
Reading instead (3rd task)	12-18	56	4.21	3.43	0.46
	29-35	23	2.87	3.72	0.78
	36-50	39	2.54	2.69	0.43
	51-78	12	5.08	3.45	1

Table 9. Errors of reading instead in third and fourth tasks by age.

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

In the Table 10 presents the results of the Analysis of Variance in which significant differences are observed in the errors of reading instead in the third task ( $p > 0.05$ ). Table 11 shows the Post-Hoc test in which it is observed that the significant differences are between the 12-18 year old groups and the 36-50 year old group ( $p > 0.05$ ).

Error type	gl	F	Next.
Reading instead (3rd task)	3	3.2	<b>0.03</b>

Table 10. Analysis of Variance of the errors of reading instead by age groups

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

Error type	Age groups	IS	Next.	
To say the color instead (4th task)	<b>12-28</b>	29-35	0.84	0.88
		<b>36-50</b>	<b>0.71</b>	<b>0.03</b>
		51-78	1.12	0.53

Table 11. Post-Hoc Test of Reading Instead Errors by Age Group

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

In the Table 12 shows the descriptive data and the Student t test of the errors of reading instead of in the third task by place of origin ( $p < 0.05$ ).

Birthplace	N	M	D.S.	IS	F	Next.	t	gl
Mexicans	70	2.94	2.88	0.34	6.03	<b>0.01</b>	2.27	128
Foreign	60	4.27	3.75	0.48				
<b>Plan</b>								
No	73	1.96	1.92	0.22	5.07	<b>0.03</b>	2.32	128
Yes	57	2.89	2.74	0.36				
<b>Gender</b>								
Men	82	0.85	1.36	0.15	8.29	<b>0.00</b>	1.35	128
Women	48	1.27	2.15	0.31				

Table 12. t-test of change errors by place of origin, whether a travel plan was made and consecutive errors by gender

N: Sample size; M: Medium; SD: Standard Deviation; ES: Standard Error

Own elaboration

## DISCUSSION

In this work, we approached a group of irregular migrants who were in the final phase of their trip since all of them had the objective of reaching the United States. The sample was heterogeneous with respect to places of origin since there were people from six different countries, whose social realities, although with certain differences between them, have in common the presence of gangs and organized crime. (Basu & Pearlman, 2017). In the case of Mexico, society coexists on a daily basis with events related to drug trafficking and in border areas with people dedicated to the passage of irregular migrants; On the other hand, countries such as El Salvador, Guatemala and Honduras located in what is known as the northern triangle of Central America, experience high rates of violence caused largely by gangs such as the Maras or the B-18. (Cantor, 2014). Another characteristic that the aforementioned countries share is that, according to data from the World Bank (2021) They are some of the economies with the lowest GDP growth in recent years.

In the present study, it was possible to verify the fact that migration is motivated mainly by the search for greater economic income and by insecurity.(IOM, 2019; UNDESA, 2020) observing that in the sample of this study the search for better economic income (29.7%) and the insecurity they suffered in their places of origin (50.5%) predominate as the main motivations for migrating.

Some of the study participants reported that their departure was forced since there were threats from gang members, whom they refer to as the “Mareros” (members of gangs such as Mara 13 or Mara 18) or from organized crime, in those that warned them that, if they did not leave their neighborhood or city within a certain period of time, they ran the risk of being victims of an attack against them or their family members. These cases were more frequent in migrants from Central America; However, this situation was not exclusive to them since there were cases in this study of people originating from the States of Michoacán and Guerrero, Mexico, who were dedicated to agriculture, who reported that in their localities there was a “floor charge.” and that they had received threats that if they did not cover the payments they would go against the head of the family. After that, one of the families chose to migrate.

Cases like the previous ones provide information about the situation in which the migrants found themselves before starting their journey, in which it was possible to verify that some of them do so without having had the opportunity to make a proper travel plan.

Furthermore, regarding the sociodemographic characteristics obtained, it was observed that the study participants do not mind living with people from other countries, half of them did not plan their trip and two thirds travel accompanied and indicated they knew someone close to them who migrated. The above data provide a general overview of

the factors that motivate people to migrate, as well as the attitudes and behaviors they have to insert themselves into a new social context, which can be understood as a motivation for cultural exploration.(Recker et al., 2017).

On the other hand, according to the data of the participants collected in this study, it was observed that they have prosocial behaviors, since the majority of them have not been arrested for committing criminal or illegal activities, they say they do not use illegal drugs, nor have they had confrontations with authority. This coincides with the report of the American Immigration Council(Ewing et al., 2015), which maintains that the migrant population is less likely to engage in antisocial or criminal behavior.

However, the commission of crimes can depend on multiple factors, such as the length of stay in a place and cultural influence. (Walters, 2019); Therefore, studying the risk factors that increase the probability of committing a crime can contribute to fostering the conditions for cultural assimilation aimed at social well-being.

On the other hand, the educational level of the sample draws attention since it was observed that the average number of years of schooling is 7.1. The bulk of the sample is between 3 and 9 years of schooling, however, there were 6 participants who had higher education. This is relevant since this group, although small, is a reference for the situation that people who seek academic improvement must face and who, due to environmental circumstances, find themselves in the need to move to another place. Finally, it must be noted that 7 study participants reported less than 3 years of schooling, which places them in a vulnerable situation during their journey since it is likely that they will present difficulties in situations that require reading and/or writing.

Given the expected position of observing differences in cultural adherence based on characteristics such as age, gender, years of schooling, place of origin and reason for leaving; The averages obtained indicate a clear low adherence towards the Non-Hispanic Area and a very marked adherence towards the Hispanic Area in the entire sample; That is, no differences were found when comparing the results of the Bidimensional Acculturation Scale.(nineteen ninety six)when purchasing them among the different sociodemographic indicators mentioned above.

From the results of the cultural adherence of the sample, it is inferred that for them the use or mastery of a foreign language is not relevant and that the priorities aim to reach the destination as soon as possible, which for them would represent, to a large extent, an advance in the search for a better quality of life.

This low adherence to the non-Hispanic Environment can appear to be a lack of integration into a new culture; However, as observed in previous results, despite not perceiving a command of the foreign language, migrants in transit have a good predisposition to live with foreigners, they do not have a tendency to commit crimes and the motivation for their migration is due to issues elementary things like having a better quality of life.

This way, it is assumed that the degree of acculturation is a function of attitudes and other individual psychological factors and these, in turn, may be influenced by the reasons for leaving the place of origin. Therefore, understanding migration as an event inherent in the search to satisfy people's basic needs contributes to the generation and implementation of care and intervention strategies for those who leave their places of origin with the intention of improving their conditions. of life during their journey.

Regarding the indicators of neuropsychological processes in irregular migrants, in the indicators of cognitive inhibition, differences were found in the difference in the time to complete the first two tasks, with the group of foreigners requiring the least time. It is important to note that, although the difference in the times to complete the tasks was significant, no differences were found in the number of errors. The above can be interpreted as one group taking longer than the other, however, they are equally efficient at inhibiting their behavior.

Regarding the flexibility indicators, differences were found by age, by place of origin, whether they prepared a travel plan and by gender. It was expected to find a difference in the execution of neuropsychological tasks by age since brain maturation and cognitive processes are reached around the age of 20 and a deficiency in these functions appears around the age of 50. In this study, the group with the fewest errors was those between 36 and 50 years old. On the other hand, one was found among the people who reported not having prepared a travel plan and the men had fewer flexibility errors, which opens the possibility of seeking more information about the time that elapses between making the decision to migrate. and doing so, as well as the problem-solving strategies taken to make the journey.

## CONCLUSION

Knowing the sociodemographic characteristics and cognitive aspects of people who leave their place of origin has implications for the work intended to be carried out by health professionals and other related areas, since this group of people is has become more heterogeneous in terms of ages, places of birth, as well as the reasons why people decide to migrate. Furthermore,

it is pertinent to explore the changes in the adaptation traits and neuropsychological processes of people in the different phases of migration to have a better overview of the

reasons and implications that drive people to seek different living conditions far from their places of origin.

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