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The universal child allowance and its relations with emotion regulation in early childhood. A behavioral study

La asignación universal por hijo y su relación con la regulación emocional en la infancia temprana. Un estudio comportamental

O subsídio universal por filho e sua relação com a regulação emocional na primeira infância. Um estudo comportamental

Lucas G. Gago Galvagno[1], ORCID 0000-0001-5993-3866
Angel M. Elgier[2], ORCID 0000-0002-6110-5151
Susana C. Azzollini[3], ORCID 0000-0002-3192-5087

[1] *Universidad de Buenos Aires, Universidad Abierta Interamericana, CONICET, Argentina*
[2] *Universidad de Buenos Aires, Universidad Abierta Interamericana, CONICET, Argentina*
[3] *Universidad de Buenos Aires, Universidad Abierta Interamericana, CONICET, Argentina*

Abstract

In Argentina, the universal child allowance (AUH by its Spanish acronym) is a social insurance that is granted to people in a situation of social vulnerability for each child under 18 years of age and with disabilities, whose parents are inserted in unregulated jobs. On the other hand, emotional regulation (ER) is related to monitoring, evaluating and modifying emotional reactions to achieve goals, and predicts communication, executive skills and academic performance. The investigations that analyze the impact of social or financial assistance by the state on the cognitive development of children in vulnerable situations are from USA and Europe, and with samples of preschoolers. The objective of the following study was to evaluate the association of this economic aid and social vulnerability with the ER of infants with and without unsatisfied basic needs. The Still-Face paradigm was used to assess ER and a socioeconomic status scale. AUH was found to be related to higher levels of ER, while social vulnerability was associated with lower levels of this skill. Regarding the interaction effect, the group with vulnerability and without AUH showed the lowest levels of ER. This underlines the importance of continuing to study the contributions of this type of public policy during the first years of life.

Keywords: universal child allowance; emotion regulation; still-face paradigm; social vulnerability; infancy

Resumen

En Argentina, la asignación universal por hijo (AUH) es un seguro social que se otorga a personas en situación de vulnerabilidad social por cada hijo menor de 18 años y con discapacidad, cuyos padres se encuentran insertos en trabajos no regulados. Por otro lado, la regulación emocional (RE) se relaciona con monitorear, evaluar y modificar reacciones emocionales para alcanzar metas, y predice la comunicación, habilidades ejecutivas y el rendimiento académico. Las investigaciones que analizan el impacto de las ayudas sociales o financieras por parte del Estado en el desarrollo cognitivo de infantes en situación de vulnerabilidad son de Estados Unidos y Europa, y con muestras de preescolares. El objetivo del siguiente estudio fue evaluar la asociación de esta ayuda económica y la vulnerabilidad social con la RE de infantes con y sin necesidades básicas insatisfechas. Se utilizó el

paradigma Still-Face para evaluar la RE y una escala de nivel socioeconómico. Se encontró que la AUH se relaciona con mayores niveles de RE, mientras que la vulnerabilidad social se asoció con menores niveles de esta habilidad. En cuanto al efecto interacción, el grupo con vulnerabilidad y sin AUH mostró los menores niveles de RE. Esto subraya la importancia de seguir estudiando las contribuciones de este tipo de políticas públicas durante los primeros años de vida.

Palabras clave: asignación universal por hijo; regulación emocional; paradigma still-face; vulnerabilidad social; infancia

Resumo

Na Argentina, o subsídio universal por filho (SUF) é um seguro social concedido a pessoas em situação de vulnerabilidade social por cada filho menor de 18 anos e com deficiência, cujos pais estão inseridos em empregos não regulamentados. Por outro lado, a regulação emocional (RE) está relacionada ao monitoramento, avaliação e modificação das reações emocionais para atingir metas, e prediz a comunicação, as habilidades executivas e o desempenho acadêmico. As investigações que analisam o impacto das ajudas sociais ou financeiras do Estado no desenvolvimento cognitivo de crianças em situação de vulnerabilidade são da Estados Unidos e Europa, e com amostras de pré-escolares. O objetivo do presente estudo foi avaliar a associação dessa ajuda econômica e da vulnerabilidade social com a RE de crianças com e sem necessidades básicas insatisfeitas. Foram utilizados o programa Paradigma Still-Face para avaliar a RE e uma escala de nível socioeconômico. Se observou que o SFU se relaciona com os níveis mais altos de RE, enquanto a vulnerabilidade social foi associada a níveis mais baixos dessa habilidade. Com relação ao efeito de interação, o grupo com vulnerabilidade e sem SUF apresentou os menores níveis de RE. Isso reforça a importância de continuar estudando as contribuições desse tipo de política pública durante os primeiros anos de vida.

Palavras-chave: subsídio universal por filho; regulação emocional; paradigma still-face; vulnerabilidade social; infância

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Correspondence: Lucas G. Gago Galvagno, Universidad de Buenos Aires, Universidad Abierta Interamericana, CONICET, Argentina. E-mail: lucas.gagogalvagno@hotmail.com

In Argentina, the Universal Child Allowance for Social Protection (AUH by its Spanish acronym) is a program of national scope and universal coverage received by families from vulnerable sectors with children under the age of eighteen and with disabilities, whose parents are inserted in non-regulated jobs. Currently, the AUH consists of a non-contributory family benefit, which combines a cash income transfer with conditions aimed at promoting the documentation, health and education of children and adolescents in situations of social vulnerability (Salvia et al., 2015, Straschnoy, 2017; Tirenni, 2013).

On the other hand, social vulnerability is defined as a multidimensional variable that refers to a combination of events or processes that generate potential adversities for the exercise of different types of citizen rights or the achievement of community, household and community projects. Therefore, it is a substantial and potentially long-lasting risk to emotional, cognitive, and behavioral functioning (Prats et al., 2017; Rubilar et al., 2017). In

this sense, the position of poverty associated with human rights should not be neglected, since this makes the issue transform from a moral plane to a legal responsibility on the part of the State, which challenges families and societies (PNUD, 2000; Tuñón et al., 2017).

In some researches, the SES is associated with different cognitive self-regulation skills during early childhood (Gago Galvagno et al., 2019; 2021; Kia-Keating et al., 2018) since it involves, issues related to styles authoritarian or neglectful parenting (Richaud et al., 2013; Rubilar et al., 2017), exposure to stress and violence, and low nutritional and health levels (Cerda-Molina et al., 2018; Rodríguez & Monge, 2017), that are detrimental to cognitive development in these stages of the life.

Regarding emotional regulation (ER), it is defined as the ability to control own emotion, regulating when and how it appears. It implies monitoring, evaluating and modifying emotional reactions to achieve the proposed objectives and goals (Gross, 1999). ER, in turn, is conditioned by the socioeconomic context (English et al., 2017; Gago Galvagno et al., 2022), and parenting styles (Bahrami et al., 2018; Haslam et al., 2019), which indicates that it is sensitive to variations in the environment of children. Lastly, ER promotes learning, executive functions, verbal and nonverbal communication, and academic performance in the first years of life (Gago Galvagno et al., 2019; Sawyer et al., 2015; Shaffer & Obradović, 2017; Skinner & Zimmer-Gembeck, 2016), therefore, it becomes extremely important to study its modulation by environmental factors during the first years of life.

A widespread procedure to study ER in infants is the Still-Face Paradigm (PSF), which consists of a primary caregiver-infant interaction of three 90-second sessions, where in the first phase a free play interaction is established, then the caregiver keeps observing the infant with a neutral face and stops playing, finally resuming the game (Tronick et al., 1978; Tronick, 2003). During the second phase, the infant must regulate his emotion in the absence of interaction from the mother, since this is a period of stress (Weinberg & Tronick, 1996).

In social or economic research, the positive impact of AUH on children in families in vulnerable situations has been studied. It was found that this program yielded positive results with respect to reducing extreme poverty, extreme food insecurity, educational exclusion of adolescents, social welfare indicators, general indigence, inequality and, to a lesser extent, avoiding child labor (Agis et al., 2010; Jiménez & Jiménez, 2015; 2016; Kliksberg & Novacovsky, 2015; Salvia et al., 2015). Within Latin America, Fernald et al. (2008) found that children from 2 to 6 years of age from families that received a greater amount of money transfers for the household, obtained higher scores in cognitive tests of executive functions, motor development, and receptive language. Regarding this last point, Gago Galvagno et al. (2020) found that vulnerable families who received economic aid from the State carried out a greater number of non-verbal interaction behaviors with their one-year-old infants. However, Fernald et al. (2017) found positive contributions of economic aid to cognitive variables in a longitudinal study from birth to 5 years, but this disappeared if it was not accompanied by schooling at the initial level. In a review by Molina-Millan et al. (2016) in which the impacts of money transfers to the home in Latin America were investigated, positive effects were found on cognitive skills and learning, and socio-emotional skills in infants and children. However, many results across countries are not significant or are mixed, using both experimental and non-experimental designs.

In the United States, it was found that the *Head Start* program, which is responsible for providing nutrition and parental involvement in early childhood to low-income children and families, increased the cognitive abilities of children from middle sectors, but not so much from lower SES, since the quality of the education centers they attended increased

relatively little. Being exposed to the program for six months increased attention, language, and socio-emotional development abilities in the total sample and decreased general inequity and aggressive behaviors (Griffen, 2019; Love et al., 2005; Roggman et al., 2009; Sharkins et al. al., 2017). Also, the *Baby's First Years* project (Troller-Renfree et al., 2022) demonstrated that an intervention based on an economic transfer (333 dollars) provided for one year to families in poverty with one-year-old infants, caused positive activation changes in the brain functioning of infants (measured by electroencephalogram), compared to families receiving a nominal monthly transfer ($20). However, other research in the United States has shown that financial subsidies given to families of children before entering kindergarten were associated with lower scores on reading and math tests, and were associated with a greater number of behavioral problems during the preschool stage, being even more negative in male infants and without unsatisfied basic needs (Herbst & Tekin , 2016), or did not show results in infants under three years of age in cognitive tests (Ayoub et al., 2009; Roggman et al., 2009).

In addition, subsidies related to child care centers that provide money to families so that they can send their children to early childhood education centers help families in the central countries to send their children to child care centers more, increase the quality of the centers they attend and maintain their working hours stable, which provides greater chances of social mobility, also increasing reading comprehension and math skills in later years (De Marco et al., 2015; Felfe et al., 2015; Sullivan et al., 2018). It should also be taken into account that financial aid interventions in the first years of life are fundamental since they promote cognitive and emotional development and mitigate the risk factors that negatively intervene in development (Arruabarrena & De Paúl, 2012).

Due to the contradiction in the results, the scarce research in Latin America on the impact of state economic aid on ER capabilities, and, finally, the importance of ER in predicting subsequent cognitive development and academic performance, is that it becomes important to study the contribution of the AUH in a sample of Argentina, to have a first approach on the subject and continue deepening in future research on the scope of this type of policy.

The objective of the following research will be to analyze the contribution of having the AUH and the basic needs met in the child ER. It is expected to find that infants whose families have this type of financial aid from the State have their basic needs met, will have higher behavioral levels of ER in the Still-Face task.

Method

Participants

The participants consisted of 75 mother-infant dyads aged 18 to 24 months (mean infant age = 20.97 months, *SD* = 2.40 months; female = 45) from homes and public and private educational centers in Buenos Aires, Argentina. Post hoc statistical power analysis was performed to determine whether the sample sizes provided sufficient power to detect association effects. At $\alpha = .05$, power estimates ranged from .60 to .80 with effect sizes of .20 and .30, respectively, indicating moderate power to detect association effects (Faul et al., 2009). Mothers, fathers and primary caregivers of the infants were invited, but only mothers attended the evaluations.

Due to the difficulty of access to the sample, the type of sampling was non-probabilistic, intentional and snowball. In the sample evaluated, 45 mothers were from Argentina, 18 from Paraguay, 5 from Bolivia, 3 from Peru, 2 from Ecuador and 2 from Colombia. All infants evaluated were Argentine.

The selection of the sample followed strict criteria: Spanish as the native language, normal vision and hearing, no evidence of serious illness, no family history of psychiatric illness, no history of injuries, seizures or neurological diseases and substance abuse or dependence by Mother. Babies had to have no symptoms of acute illness and had to be born at term and at an appropriate height and weight for gestational age. For this, the medical records of the mother and babies were investigated. Four infants were excluded from the final sample because they had atypical development (hearing loss, $n = 1$) and because they refuse to participate ($n = 3$).

The descriptive data for the sample divided by SES and access to the AUH measured through the Social Economic Level Scale can be seen in table 1. In the event that a family belonging to vulnerable sectors does not receive the AUH, they were guided from the educational centers of their neighborhoods to process it.

Table 1
Sample frequencies according to socioeconomic level and the presence of the AUH

Groups	AUH		Total
	Presence	Absence	
UBI	27	14	41
SBN	7	27	34
Total	34	41	75

Note. SBN: Satisfied Basic Needs; UBN: Unsatisfied Basic Needs; AUH: Universal Child Allowance.

As can be seen in table 1, most of the sample with unsatisfied basic needs had the AUH, however, 34 % of the vulnerable sample did not have access to this right. As for the sample without unsatisfied basic needs, 20% received the allowance. This could be due to the ambiguity that the measurement of social vulnerability may have to detect the dichotomous criterion of unsatisfied/satisfied basic needs.

Procedure
The toddlers were evaluated together with their mothers. The researcher explained the tasks to the mothers before they were asked to sign an informed consent for the assessment, in accordance with the Declaration of Helsinki. This study and the protocol were carried out and approved by the Ethics Committee of the Universidad Abierta Interamericana.

The behaviors were video recorded and timed using a Sony HD HDR-CX160 video recorder and a Model CR202 stopwatch from the Galileo Italy line to measure time. Seventy-five children were evaluated on the Still-Face task. The same male evaluator presented the task, the toys, and the procedure to the mothers.

Instruments

Socioeconomic Level Scale (INDEC, 2019). The dyad was classified within the group "Unsatisfied Basic Needs" if one of the following criteria was met: lived in a precarious settlement, the house did not have its own bathroom, the house did not have access to mains water, absence of 3 or 4 meals daily, presence of overcrowding (three or more people per room), primary school children in the household did not attend school, or parents in the household did not have primary education. The subdimensions overcrowding, type of housing, type of occupation and educational level were formed through the data of both primary caregivers in a score that ranged from 1 to 9 points for the variable overcrowding, and from 1 to 12 for the rest of them. The total score was made up of the sum of these variables, in a scaled score from 0 to 45 points.

Still-Face test (Weinberg et al., 2008). To assess ER, an adaptation of the Still-Face task for children was used, which, unlike measures for infants, is performed on the floor and with a series of standardized toys (Weinberg et al., 2008). A children's play mat of 120cm long × 90cm wide was placed on the floor, and three toys were placed on it: a multi-colored ball (20 cm diameter), a puppet (30 cm high), and a plush toy in the shape of a dog (25 cm high). The toys were kept constant, and the mothers were told that they could not use other objects than those presented. The task consisted of three 90-second videotaped phases. In the first phase, the mother had a free play session with the toys provided. After 90 seconds, the experimenter made a slight sound to give way to phase II, in which the mother had to maintain a neutral face observing the infant and stop playing. Mothers were previously told that the neutral face involved looking at the child with a "poker face" (without anger) and avoiding all contact. If the infant hugged them, they were to gently remove it and continue in this state. In the last phase, the experimenter again made a soft sound for the mother to resume the free play phase. The total test lasted 4′30″.

Coding for phase II was performed according to the Child and Caregiver Mutual Regulation (CCMR scoring system, Weinberg et al., 2003). Infant affect was measured based on facial expressions (smiles, frowns, etc.) and affective vocalizations (crying, yelling with excitement, etc.). These were divided into two types of affects: (1) Positive: facial expressions of joy (e.g., smile, laughter) and positive vocalizations with exuberance and enthusiasm; (2) Negative: facial expressions of anger, sadness, fear, and negative vocalizations such as crying, complaining, frustration, irritation, discomfort, or impatience.

In addition, the number of child-specific behaviors was measured, including verbal and non-verbal behaviors: (a) showing the mother a toy (bringing a toy closer to her or pointing at an object), (b) aggressive acts (yelling, throwing a toy, hitting the mother), (c) displacement (time the baby withdraws from the interaction with the mother, leaving the camera focus), (d) aversion (turning away from mother) and (e) self-comforting behaviors (sucking a thumb or finger or playing alone). These behaviors were coded according to frequency (rate per phase), except withdrawal of the child from the mother (displacement) which was measured in time. The behaviors were mutually exclusive. The camera was placed on a tripod in front of the dyad to obtain an optimal view of the baby's face.

In this task, if the infant shows a greater number of behaviors of positive affectivity, self-comfort and showing toys to the mother, it shows higher levels of ER. On the contrary, higher levels of negative affect, aggressive behaviors, distance from the mother and aversion to looking, account for a lower level of ER (Tronick, 2003; Weinberg et al., 2008).

For reliability, a primary coder recorded the variables measured in the task for all videos. A second encoder recorded the behaviors in 15 randomly selected videos (20% of the total). Reliability for continuous variables (intraclass correlation) was significant at or below the .05 level and was greater than 0.80 for all measures of ER in phase II.

Analysis of data

In all analyses, the type 1 error probability was .05. Given that the skewness and kurtosis for continuous variables were within the range of ± 2 and ± 7, respectively (West et al., 1995), Levene's test found homogeneity of variances for most variables ($p > .05$), and that our total sample was 75 participants, parametric statistics were applied.

The data of the main measured variables were described. Then, the Pearson correlation test was applied to associate the child regulation variables with those related to the family's SES and the child's age.

The MANOVA test was applied, and the assumption of normality, homogeneity of covariance matrices ($F = 0.76$, $p > .05$) and Levene's homogeneity of variances for all variables ($p > .05$) were met.

Results

Descriptive statistics

Table 2 shows the descriptive results for the behaviors evaluated during phase II in the total sample.

Table 2

Descriptive statistics for measured variables (n = 75)

Variables	*M (SD)*	95% CI	Range
Emotion regulation			
1. Positive affect	0.22 (0.55)	[0.05, 0.38]	0-3
2. Negative affect	1.07 (1.20)	[0.71, 1.42]	0-5
3. Show toy	1.54 (1.62)	[1.06, 2.03]	0-7
4. Aggressive	0.54 (1.17)	[0.20, 0.89]	0-5
5. Displacement	25.87 (24.74)	[18.53, 33.21]	0-89.41
6. Averssion	0.74 (0.77)	[0.51, 0.97]	0-3
7. Self-Comfort	0.70 (1.17)	[0.35, 1.04]	0-5
Social vulnerably			
8. Total SES	30.18 (6.95)	[28.11, 32.24]	16-45
9. Total Education	6.78 (2.49)	[6.05, 7.53]	2.5-12
10. Total Occupation	5.65 (2.54)	[4.90, 6.41]	0-12
11. Total House type	10.24 (2.94)	[9.37, 11.11]	3-12
12. Total Overcrowding	7.50 (1.98)	[6.91, 8.09]	3-9

Note. SES: Socioeconomic Status.

Positive affect behaviors were low since during phase II of PSF they do not tend to manifest and were significantly reduced compared to the free play phase (Weinberg et al., 2008). On the other hand, on average the sample showed that they had completed high school, decent housing (drinking water, their own bathroom and gas network) and low levels of

overcrowding. This could be because the vulnerable sample evaluated belonged mostly to the area of the City of Buenos Aires, where vulnerable urban neighborhoods are usually urbanized and with greater support from the state in relation to rural areas (Hermida et al., 2018).

Correlation between variables: emotional regulation and social vulnerability

ER behaviors were correlated with the different subdimensions of socioeconomic status. Table 3 summarizes the results.

Table 3

Correlations between emotional regulation behaviors, subdimensions of social vulnerability and age (in months)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Positive affect	-	-.30*	-.08	.13	.18	.12	.31*	.29*	.21	.35*	-.05	-.30*	-.12
2. Negative affect		-	-.13	.26*	.10	.22	-.29*	-.01	-.18	-.12	.11	.31*	-.14
3. Show toy			-	-.08	-.25	-.04	.19	-.19	.03	-.19	-.30*	-.20	.30*
4. Aggressive				-	.32*	-.04	-.29*	-.03	-.25	-.18	.16	.26*	.19
5. Displacement					-	-.12	-.21	.18	-.01	-.01	.23	.30*	-.40*
6. Gaze aversion						-	-.22	-.08	-.17	-.03	-.02	.06	-.01
7. Self-Comfort							-	-.25	-.13	-.06	-.21	-.38*	.16
8. Total SES								-	.79**	.73**	.77**	.69**	-.07
9. Total Education									-	.70**	.35*	.33**	-.19
10. Total Occupation										-	.30*	.25*	-.15
11. Total House type											-	.61**	.07
12. Total Overcrowding												-	-.12
13. Age (in months)													-

Note. SES: Socioeconomic Status.
*$p < .05$; **$p < .01$

It was found that the total socioeconomic level and the type of occupation were positively associated with positive affect, and as these increased, the number of positive affective behaviors also increased. This would show that formal occupations and hierarchical positions and a higher total SES are associated with a higher toddlers ER, since they maintain behaviors of smiles, laughter and enthusiastic vocalizations despite the lack of interaction from their mothers. On the other hand, the type of house was negatively associated with showing toys and having a more precarious housing was negatively associated with showing toys by the infant during phase II of the task. This would be an incipient data that would account for a lower level of ER by the infant when housing is more precarious, since they stopped interacting in the perceived stress situation.

Regarding overcrowding, it was found that, the more overcrowding in the home, positive affect and self-comfort decreased and negative affect, aggressive behaviors and withdrawal increased, accounting for a lower level of ER in this phase of the task.

Finally, age was positively associated with the number of times the infant showed toys to his mother and negatively associated with the amount of time they were away from her. This means that age was positively related to ER.

Group comparison: AUH and socioeconomic level

The groups with satisfied and unsatisfied basic needs and the groups of families with and without AUH were compared. Finally, the interaction effect between both groups was analyzed. The variable gender and months were controlled by inserting them as covariates. Table 4 summarizes the descriptive statistics for both groups in RE behaviors.

Table 4
Descriptive statistics for the ER variables according to the AUH and SES groups

Behaviors	AUH		Social vulnerability	
	Presence	**Absence**	**UBI**	**SBI**
	M(SD)	*M(SD)*	*M(SD)*	*M(SD)*
Emotional regulation				
Positive affect	0.25(0.4)	0.20 (0.6)	0.23(0.4)	0.20(0.7)
Negative affect	0.96(1.2)	1.47(1.6)	1.55(1.6)	1.00(1.5)
Show toys	2.05(2.0)	1.16(1.1)	1.58(1.7)	1.00(1.6)
Aggressive	0.56(0.9)	0.68(1.5)	0.91(1.4)	0.31(1.0)
Displacement	25.10(21.2)	26.99(28.1)	29.76(26.7)	20.80(21.4)
Gaze aversion	0.74(0.9)	0.84(0.7)	0.88(0.8)	0.65(0.7)
Self-Comfort	0.76(1.3)	0.65(0.9)	0.58(0.9)	0.85(1.4)

Note. AUH: Universal Child Allowance; SES: Socioeconomic Status; UBN: Unsatisfied Basic Needs; SBN: Satisfied Basic Needs.

Regarding SES, the variables negative affect (Wilk's $\lambda = .68$, $F_{(1.8)} = 6.30$, $p = .016$, $n^2 =.14$) and aggressive behaviors (Wilk's $\lambda = .68$, $F_{(1.4)} = 4.02$, $p = .045$, $n^2 = .10$) showed statistically significant differences, with the vulnerable group showing a greater number of these behaviors during phase II of the SFP, therefore, this group would present behaviors that would account for a lower level of ER.

Regarding the AUH variable, differences were found in the behaviors of showing toys (Wilk's $\lambda = .81$, $F_{(1.12)} = 4.66$, $p = .037$, $n^2 = .10$) and negative affect (Wilk's $\lambda = .81$, $F_{(1.11)} = 3.98$, $p = .048$, $n^2 = .09$), and the infants in the group with AUH showed a greater number of behaviors of showing toys and less of negative affect in phase II of the SFP, which would account for a higher level of ER for this group.

Finally, an interaction effect was found for both groups in aggressive behaviors (Wilk's $\lambda = .75$, $F_{(1.13)} = 4.03$, $p = .038$, $n^2 = .12$) and in withdrawal behavior (Wilk's $\lambda = .75$, $F_{(1.10)} = 5.13$, $p = .029$, $n^2 = .15$), and the vulnerable group without access to the AUH showed the greatest amount of both behaviors, which would account for a lower level of regulation in this test for this group. On the other hand, the group without vulnerability and without AUH showed the least amount of these two behaviors, being the one with the highest level of performance in this test.

Discussion and Conclusions

The objective of the research was to analyze the association between AUH and social vulnerability with childhood ER. It was found that the subdimensions of total SES, type of occupation, type of housing and overcrowding were associated with behaviors tending to ER.

In turn, the dyads without satisfied basic needs and without the AUH showed significantly fewer ER behaviors compared to the rest of the groups.

The contribution of the socioeconomic environment to different cognitive abilities using behavioral techniques was found in other investigations (Gago Galvagno et al., 2021; Hermida et al., 2018; Justice et al., 2019), however, as already stated, this is the first one that works with ER, using this paradigm in Argentina, which reinforces the findings found in previous research in United States and Europe. The type of occupation, overcrowding and the type of housing could generate a predisposition to stress, lack of interaction between caregivers and infants, health problems and subjective discomfort in the family, which would generate lower performance in tests that measure cognitive skills and emotional by infants (Guinosso et al., 2016; Waters et al., 2016), as found in the results of the present research.

It should be noted that no associations were found according to the educational level of the parents, since in other investigations it is usually the variable with the greatest predictive power for child cognitive development (Rodríguez-Garcés & Muñoz-Soto, 2017; Rowe et al., 2017). This could be because participants of this study generally showed the complete secondary level. This derives from the fact that in the City of Buenos Aires, on average, vulnerable areas have more support and economic containment than in most of the country, in addition to having access to a greater number of opportunities that could alleviate their situation of vulnerability (Hermida et al., 2018; Oszlak, 2019).

On the other hand, regarding relationships with AUH, these results are similar to those found in other developed countries regarding the impact of state subsidies in the early stages of development (Fernald et al., 2008; Griffen , 2019; Love et al., 2005; Roggman et al., 2009; Sharkins et al., 2017), although they are contrary to other studies that showed no effects of these social interventions in the first three years of life (Ayoub et al., 2009; Herbst & Tekin, 2016; Roggman et al., 2009).

The differences with respect to previous studies could be due to the type of economic aid that is provided from public policies in the different countries. In this sense, many of the interventions in developed countries and with which previous research was carried out provide other types of economic aid in early childhood, which, unlike the AUH, last only a few months and are based on reinforcing the bond between primary caregivers and infants (Griffen, 2019). On the other hand, the AUH has already been applied for 10 years, and it ends up having an impact on the family's economic dynamics in the long term, in addition to being accompanied by the attendance of infants in educational centers from the first years of life, guaranteeing basic rights of the vulnerable population (Kliksberg & Novacovsky, 2015).

This differential found in those dyads that have the AUH could be due to a series of issues: on the one hand, the infants receive mandatory medical check-ups and the vaccination schedule. In addition, primary caregivers could have more time to take care of infants, the home environment would be less stressful, the psychological well-being of caregivers would increase, and this would also improve parental sensitivity styles (Kliksberg & Novacovsky, 2015; Salvia et al., 2015). In turn, the families of the infants who access the AUH have the obligation to send them to educational institutes, which provide a space for interaction with other adults, peers and didactic instruments that could promote cognitive development in the early years.

It is also necessary to highlight that the correlation coefficients were approximately .30, and the effect sizes between .10 and .15, therefore, they are averaging the association effects of other investigations with the same samples (Frick et al., 2017; Kochanska et al., 2000). However, these indices would be reflecting that other variables would be intervening in the associations, which would require further research to ascertain them.

Lastly, this research presented a series of limitations. The sample was relatively small, carried out with a non-probabilistic sample due to the difficult access and evaluation of this population. In addition, the sample was homogeneous, since we worked with participants from vulnerable and non-vulnerable areas belonging only to Buenos Aires. The study was cross-sectional, which does not allow detecting the different trajectories of development.

Future research is expected to increase the sample size, diversify the sample (to other provinces of the country) and generate a longitudinal study to evaluate the trajectories of communicative development. In addition, it would be necessary to evaluate the length of time that the family receives the AUH, since this could provide more information on the long-term impact of this social protection measure. It would be useful for future research to focus on the impact of AUH and poverty environments in the first years of life, in order to promote cognitive skills during this stage of development, sustain the benefits of this public policy and thus promote comprehensive development of children.

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