

## Stressors and Perceived Social Support in Women/Mothers with Depression

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### Abstract

Given the recognition of the influence of maternal depression on the family environment, this study aimed to compare and verify the possible associations between the sociodemographic profile, stressor events and social support perceived by women/mothers with recurrent depression (G1), compared to women/mothers without psychiatric disorders (G2). The participants were 100 women with biological school-age children. The women responded to the instruments: General Questionnaire, Structured Clinical Interview for DSM-IV, Adverse Events Scale, Chronic Adversity Scale and Semi-Structured Interview – Social Support. It was found that G1 presented significantly more stressor events and less perceived social support. In linear regression analysis, the depression was a significant condition for most of the stressful events, independent of the sociodemographic variables. However, schooling was the only condition that influenced the perceived social support. In mental health actions for women/mothers with depression, it is necessary to consider the coexistence of multiple stressor conditions and low perceived social support.

*Keywords:* depression, women, psychological stress, social support

### Estressores e Suporte Social Percebido em Mulheres/Mães com Depressão

#### Resumo

Dado o reconhecimento da influência da depressão materna para o ambiente familiar, objetivou-se comparar e verificar as possíveis associações entre o perfil sociodemográfico, eventos estressores e suporte social percebido por mulheres/mães com depressão recorrente (G1), em relação a mulheres/mães sem transtornos psiquiátricos (G2). Participaram 100 mulheres, com filhos biológicos em idade escolar. As mulheres responderam aos instrumentos: Questionário Geral, Entrevista Clínica Estruturada para DSM-IV, Escala de Eventos Adversos, Escala de Adversidade Crônica e Entrevista Semiestruturada – Suporte Social. Verificou-se que G1 apresentou significativamente mais eventos estressores e menos suporte social percebido. Na análise de regressão linear, detectou-se que a depressão foi condição significativa para maioria dos eventos estressores, independentemente das variáveis sociodemográficas. Entretanto, a única condição que influenciou a percepção de suporte social foi a escolaridade. Nas ações em saúde mental para mulheres/mães com depressão, faz-se necessário considerar a convivência com condições de múltiplos estressores e baixo suporte social percebido.

*Palavras-chave:* depressão, mulheres, estresse psicológico, apoio social

### Factores de Éstres y Apoyo Social Percibido en Mujeres/Madres con Depresión

#### Resumen

Considerando la influencia de la depresión materna en el ambiente familiar, el objetivo de este estudio fue comparar y verificar las posibles asociaciones entre el perfil sociodemográfico, acontecimientos estresantes y apoyo social percibido por mujeres/madres con depresión recorrente (G1), con relación a las mujeres/madres sin trastornos psiquiátricos (G2). Participaron 100 mujeres, con hijos biológicos en edad escolar. Las mujeres respondieron a los instrumentos: Cuestionario General, Entrevista Clínica Estructurada para DSM-IV, Escala de Eventos Adversos, Escala de Adversidad Crónica y Entrevista Semiestruturada – Apoyo Social. Se verificó que G1 presentó significativamente más acontecimientos estresantes y menos apoyo social percibido. En el análisis de regresión lineal, se detectó que la depresión fue condición significativa para la mayoría de los acontecimientos estresantes, independientemente de las variables sociodemográficas. Mientras tanto, la única condición que influyó en la percepción del apoyo social fue la escolaridad. En las acciones en salud mental para mujeres/madres con depresión, es necesario considerar la convivencia con condiciones de múltiples factores de éstres y bajo apoyo social percibido.

*Palabras-clave:* depresión, mujeres, estrés psicológico, apoyo social

## Introduction

The World Health Organization (WHO) indicators (2012) show a progressive increase in the number of depression cases worldwide and consequently an increase in related economic and social costs. This

psychopathology is characterized by symptoms of sadness, apathy, and lack of interest in life (WHO, 2014) that impact quality of life. It is considered the main global cause for disability (WHO, 2012).

Depression is a mental illness seen in 5.3% to 6.6% of the general population. Its lifetime prevalence

can be over 16% in America. Additionally, it is most common in women, presenting in two women for every man (Hammen, Bistricky & Ingran, 2010). In Brazil, a study in São Paulo including a megacity-representative population sample indicated 11% prevalence of depressive disorders in adults. It also showed a high depression rate in women aged between 18 and 49 years old, where 82% of all episodes were considered moderate to severe (Andrade et al., 2012). These data may point out particular characteristics related to severity and negative impact on the family environment of women of childbearing age.

Families living with depressed women/mothers may become a detrimental environment due to negative affect displays, low responsivity, and the women/mothers' removal from their daily routine. These factors favor a disorganized and conflicted environment. In a recent editorial, Psychogiou and Parry (2014) point out that multiple context variables mutually influence families living with depressed parents. They emphasize this psychopathology's impact on parenthood and family routine organization.

Several studies have stressed depression's negative impact on children of women of childbearing age throughout their different stages of development. These children are exposed to more stressor life events (Lopez-Duran, Nusslock, George, & Kovacs, 2012), particularly those who have lived with mothers presenting with severe depressive disorders (Wickramaratne et al., 2011). School-age children of depressed mothers presented with three times the chance to develop behavioral problems (Pizeta, 2014) and three times the risk of having issues with academic success (Weissman et al., 2004).

A Goodman et al. (2011) meta-analysis of maternal depression in the family environment comprising 143 empirical studies convergently showed presence of multiple risk factors in families living with maternal depression. It identifies this psychopathology's significant correlation with mothers who are economically underprivileged, less schooled, constitute a one-parent family, and come from an ethnic minority. Understanding the impacts of living with maternal depression may be achieved through developmental psychopathology's theoretical frame of reference, which seeks an explanation for the multiple biological, psychological, social, and cultural factors that concurrently favor competence and/or dysfunction in life events of individuals or groups (Toth & Cicchetti, 2010).

Particularly, certain family environment events may be characterized as stressors, overburdening an individual or family's adaptive resources, and favoring maladaptive responses (Yunes & Szymanski, 2001). It might also be possible for these individuals to access positive resources or responses that minimize these events' impact (Masten & Gewirtz, 2006). Regardless of maternal depression, non-specific families may also generally find social and economic status to be a stressor event (Assis, Avanci, & Oliveira, 2009; Ferrioli, Marturano, & Puntel, 2007; Silva, 2010). Other relevant stressors – or protective resources – identified in studies by Sá, Bordin, Martin and de Paula (2010) and Vitolo, Fleitlich-Bilyk, Goodman and Bordin (2005) are: financial condition, family configuration, mother's schooling, and quality of family relationships.

However, these studies show that families living with maternal depression generally find being socially and economically underprivileged an unfavorable stressor factor that adds to depression. Low social and economic level has been the most assessed factor in empirical studies including maternal depression as a predictive variable. It has been identified as the only stressor constantly experienced by these families (Tompson et al., 2010). Sociodemographic variables such as less schooling and marital status of depressed women (single, separated, or widowed mothers) have been identified as prevalent in Campbell, Morgan-Lopez, Cox and McLoyd's (2009) study, as well as in Goodman et al. (2011) meta-analysis. This indicates a significant correlation between depression and sociodemographic risk variables.

This list of variables is increased by events generally considered to be stressful by non-specific families, such as having family members involved with law enforcement, drug abuse (Barker, Copeland, Maughan, Jaffee, & Uher, 2012) and illicit activities (Mickelson & Demmings, 2009), in addition to internal family conflicts and marital conflicts (Sá, Bordin, Martin, & de Paula, 2010; Vitolo, Fleitlich-Bilyk, Goodman, & Bordin, 2005). In families exposed to maternal depression, we can also consider parenting practices characterized by strict discipline (Kersten-Alvarez et al., 2012) and lack of care; impulsivity, and hostility as common responses of depressed mothers to their children's behavior (Chen & Johnston, 2007).

Thus, a broad set of adverse factors has been identified as a risk for families living with depressed women/mothers. By contrast, developmental psychopathology points out the need for assessing which

protective variables co-exist in these families' environments. We stress that protective variables have not been extensively studied. Many of them are described as the absence or lower amount of risks. Literature fails to convergently show these indicators and their impact on children of depressed mothers in different stages of development (Goodman et al., 2011).

Relevant empirical studies on variables defined a priori as protective in non-specific families have mostly assessed family dynamics, including routine organization (Ferrioli et al., 2007) and marital relations (Whiffen, Kerr, & Kallos-Lilly, 2005). Social support has also been studied as a resource. From a relational perspective, social support can be the act of offering emotional or practical aid practiced by individuals (Antunes & Fontaine, 2005) or institutions (Noronha, Cardoso, Moraes, & Centa, 2009).

Similarly to other familial variables, social support can be construed as adversity or resource indicator, depending on its unavailability and inefficacy or availability and efficacy, respectively. Social support's physical and psychological benefits have been pointed out to favor adjustment in potentially stressful situations (Pesce, Assis, Santos, & Oliveira; 2004).

In families whose mothers were undergoing treatment for depression, Talati et al. (2007) showed that parental presence is of protective value. The study indicated that an effective support provided by the mother's partner aided in diminishing severity of maternal depression symptoms and extenuated the condition's impact on children. Hart, Atkins and Matsuba (2008) indicated that less family support and less maternal schooling predicted more unstable personality profiles for children from 5 to 6 years old. However, few empirical studies have assessed the absence of social support as a risk variable linked to depression in women/mothers (Gerkenmeyer et al., 2011; McMahan et al., 2015; Mickelson & Demmings, 2009).

The lack of studies analyzing the influence of these events on the familial environment, be it as indicators of adversity or protection, is a literature gap that requires further investigation. This exploratory study is developed in the setting of such gap. It aims to compare and verify possible correlations among context variables (sociodemographic profile), stressor events, and social support in women/mothers presenting with recurrent depression and women/mothers presenting without psychiatric disorders. Our study is driven by the belief that understanding these diverse variables, including both adverse and protective factors, in the

lives of depressed women/mothers may support prevention and intervention mental health public policies.

## Method

The study presents a cross-sectional, correlational and predictive design for comparing groups of individuals. It was submitted, analyzed and approved by a local ethics committee.

### *Participants*

This study's population was comprised of women aged between 25 and 45 years old who had biological school-age children. G1 included 50 women/mothers diagnosed with recurrent depressive disorder, having had at least one moderate to severe episode 2 years prior to data collection, not having presented with an episode over the last 6 months, and currently visiting an outpatient service for mental health aid. G2 included 50 women/mothers presenting without psychiatric disorders, and currently visiting a Family Health Unit (a Brazilian public health system unit targeted specifically for families). Participants were selected from municipal and state health service networks, in a mid-sized city in the State of São Paulo, Brazil.

Inclusion criterion for G1 was having been diagnosed with recurrent depression according to the International Statistical Classification of Diseases and Related Health Problems, ICD-10 (WHO, 2014). Women diagnosed with single-episode major depression or who exclusively presented with mild episodes, in addition to other psychiatric disorders or severe chronic diseases as comorbidities, were excluded. G2 included women without psychiatric disorders, who were then systematically assessed. Women who presented with severe chronic illnesses were excluded. All mothers in both groups had a least one school-age son or daughter.

G1 population was selected as follows: 7.721 medical records were analyzed dating back 4 years; 268 women diagnosed with recurrent depression presenting with a moderate or severe episode or in remission were chosen; we then verified whether they had children aged between 7 and 12 years old. 218 women were excluded due to: presenting with depressive symptoms at the time of collection (92); researchers not being able to contact them (61); not wishing to participate (38); and presenting with other psychiatric disorders (27). G2 population was selected as follows: 153 women were chosen from a list provided by the Family Health Unit. 103 of them were excluded due to: not wishing to

participate (42); presenting with depressive symptoms or psychiatric disorders (34); and researchers not being able to contact them (27).

#### *Instruments and Materials*

- A general questionnaire, for assessing sociodemographic profile and social and economic level of participants. This assessment included Brazilian Criterion of Economic Classification items, developed in 2010 by the Brazilian Research Enterprises Association (Associação Brasileira de Empresas de Pesquisas – ABEP).
- Structured Clinical Interview for DSM-IV (SCID), for assessing the presence/absence of diagnostic indicators for psychiatric disorders. This instrument is considered to be the gold standard interview for establishing psychiatric diagnostics. It was translated and adapted for the Brazilian population by Del-Ben (1995) and presented good validity psychometric indicators (Del-Ben et al., 2001). For G1, General Review, SCID-I (A, B, C, D, E, and F), and SCID-II modules were used to confirm a diagnosis of recurrent depressive disorder, exclude comorbidities, and identify these women's clinical profile. For G2, version SCID-NP was used to exclude psychiatric disorders. We point out that the Diagnostic and Statistical Manual of Mental Disorders (DSM), currently in its Fifth Edition, included its previous edition's diagnostic criteria for persistent depressive disorders, which was used to develop SCID.
- The Brazilian Adverse Events Scale (*Escala de Eventos Adversos* – EEA) and Chronic Adversities Scale (*Escala de Adversidade Crônica* – EAC) were used for identifying stressor events. These scales were developed by Marturano (1999) and present positive reliability indicators (Santos, 1999). They respectively assess the presence of adverse events over a period equal to or greater than 12 months and the presence of chronic stressor events. Categories were determined as event-related item responses regarding: (a) Overall Context, mostly related to social and economic underprivilege; (b) Family Context, including indicators for health conditions in the family, loss, law enforcement involvement, and psychoactive substance abuse; (c) Children-Related Factors, regarding health conditions, academic achievement and social interaction in the school setting; and (d) Family Interactions,

including conflicts, violence against children, and paternal absence from the family's daily activities.

- A semi-structured interview script on social support to assess social support indicators. This script is part of a set of questions developed by Pizeta (2014) to assess the key processes of family resilience, based on Walsh (2005). It includes questions on two support categories: (1) community resources, which are supports provided (and perceived by the mother) by health or educational institutions, recreational spaces, religion, social and community workers; and (2) supports found in social relationships, i.e., supports provided by individuals to whom participating women turned for help, supports relating to their perception of such help, and to their family's religious beliefs.

#### *Procedure*

##### *Data Collection*

Participating women/mothers were assessed in the health service unit facilities or in places chosen by them for convenience, respecting their privacy and comfort. Assessments were administered by trained psychologists after participants had signed an Informed Consent Form. Two to three individual face-to-face sessions were held with participating women lasting from 60 to 120 minutes (average duration of 85 minutes). In the first session, general questionnaire and SCID instruments were administered. In the second session, the EEA and EAC scales, and semi-structured interview – regarding Social Support – were administered and audio-recorded. When required, a third session was held to finish interviewing participants.

##### *Data Handling*

The collected data were coded according to each instrument's purpose. Stressor event indicators were coded based on the aforementioned categories, with total event score varying from 0 to 64. The interviews were transcribed, fully and verbatim. This transcription was then used for content analysis of responses, as per Bardin (2011), for future data quantification. Both social support categories were coded based on scores, with total resources varying from 0 to 91. As instruments presented with a varying number of items, we chose to use the proportion of items over the total amount of items, in order to make data comparison possible. Then, an analysis of 20% of all assessments

for the stressor event and perceived social support categories was compared by independent judges. A simple agreement of respectively 78% and 84% was reached.

Data were submitted to statistical analysis on SAS® 9.0 software for initial Kolmogorov-Smirnov and Shapiro-Wilk normality tests. A descriptive analysis on sociodemographic variables, stressor event and perceived social support variables was conducted. Fisher's exact test was used for comparing sociodemographic variables between groups and Student's *t*-test was used for comparing stressors and perceived social support. Cohen's *d* was calculated to estimate the sample's effect size. This allowed for cross-variable intensity to be measured and interpreted based on Cohen's cut-offs (1988). In order to verify correlations among sociodemographic variables, stressor events, and social support, a multiple linear regression test was used. For each stressor – and support-related factor, maternal depression and demographic variables were included as explanatory variables that had been verified as statistically significant in the group comparison analysis stage. All tests considered a significance level of 5% ( $p \leq 0.05$ ).

## Results

According to the study's objectives, we will first present a comparison of sociodemographic variables, stressor events, and perceived social support between both groups. Next, we will present correlations among these variables.

Participant sociodemographic characteristics included in this study are presented in Table 1, which establishes a comparison among profiles in the group of women/mothers diagnosed with recurrent depression (G1) and the group of women/mothers presenting without psychiatric disorders (G2).

Average age was 36.2 years old, varying from 25 to 45 years old ( $SD = 5.02$ ). Most of participants in both groups were wage labor workers and had up to three children. Groups showed statistically significant differences regarding participant schooling, marital status, and social and economic level.

Regarding schooling, most women/mothers in G1 (62%) had up to 8 years of schooling. In G2, most of them (74%) had over 8 years of schooling. Regarding marital status, 66% of G1 participants were partnerless and 94% of G2 women lived in two-parent

Table 1  
*Comparison of Sociodemographic Characteristics in G1 and G2 Women/Mothers (n = 100)*

Women/mothers	Groups		Total	Raw OR	CI (95%)	p-Value*	
	G1 <i>f</i> (%)	G2 <i>f</i> (%)					
Age	25 to 35 years old	23 (46)	26 (52)	49 (49)	1.000	Reference	0.6893
	36 to 45 years old	27 (54)	24 (48)	51 (51)	1.271	(0.580, 2.789)	
Schooling	≤ 8 years old	31 (62)	13 (26)	44 (44)	4.644	(1.981, 10.883)	<b>&lt;0.001</b>
	>8 years old	19 (38)	37 (74)	56 (56)	1.000	Reference	
Marital Status							
	Partnerless	33 (66)	03 (06)	36 (36)	30.410	(8.242, 112.209)	<b>&lt;0.001</b>
	Partnered	17 (34)	47 (94)	64 (64)	1.000	Reference	
Employment	Wage labor	27 (54)	36 (72)	63 (63)	1.000	Reference	0.0969
	Benefits + Unemployed	23 (46)	14 (28)	37 (37)	2.190	(0.954, 5.028)	
n of Children	1 to 3	40 (80)	47 (94)	87 (87)	1.000	Reference	0.0713
	4 to 5	10 (20)	03 (6)	13 (13)	3.917	(1.008, 15.220)	
Social and Economic Class**							
	A and B	19 (38)	39 (78)	58 (58)	1.000	Reference	<b>&lt;0.001</b>
	C and D	31 (62)	11 (22)	42 (42)	5.785	(2.400, 13.942)	

Note. \*p-Value refers to Fisher's exact test /  $p \leq 0.05$ ; \*\*According to ABEP's Criterion; G1 = Women/Mothers presenting with recurrent depression history; G2 = Women/Mothers presenting without psychiatric disorders.

families. Social and economic class analysis showed that 28% of G1 and 78% of G2 families belonged to classes A and B.

Table 2 shows a comparison of stressor events and perceived social support in G1 and G2.

Regarding stressor events, there were significant statistical differences between groups for all four categories (Overall Context, Family Context, Children-Related Factors, Family Interactions) and all stressors. For all categories and stressors, G1 averages were greater than G2 averages. Difference between groups showed an average effect size for Family Context stressors and a high effect size for the remaining stressor categories.

When comparing perceived social support between groups, significant statistical differences were shown for the social-relationships support category and for the total social support data, given that G1 averages were lower than G2's for these two indicators. Difference between groups for these two indicators showed an average effect size. Regarding the community resource category, G1 average was comparatively lower than G2's and did not present any statistical significance.

Correlations among maternal depression, sociodemographic variables (explanatory variables), and stressor events and perceived social support variables are shown in Table 3.

Linear regression analysis verified all explanatory variables (maternal depression, mother's schooling,

marital status, and social and economic class) as significant for Overall Context stressor events [ $F(4,99) = 21.257, p < 0.001, R^2a = 0.450$ ]. This showed that the presence of depression, less schooling of women/mothers, absence of a partner, and social and economic underprivileged were correlated to a higher number of stressors in this context.

In models tested for Family Context [ $F(4,99) = 4.475, p = 0.002, R^2a = 0.123$ ] and Total Stressors [ $F(4,99) = 17.891, p < 0.001, R^2a = 0.405$ ], depression and the family's social and economic class were significant factors, i.e., depression and fewer social and economic resources favored a higher number of stressors.

In the tested model, depression was the only significant factor for stressors involving children-related adverse situations [ $F(4,99) = 6,718, p < 0.001, R^2a = 0.188$ ]. Multiple regression tests showed that the mother's marital status (absence of a partner) was the most significant factor influencing the presence of a higher number of stressors in Family Interactions [ $F(4,99) = 11.392, p < 0.001, R^2a = 0.296$ ]. Concerning regression models for testing perceived social support, the women/mothers' level of schooling and sociodemographic condition significantly influenced Social-Relationship Support [ $F(4,99) = 3.564, p = 0.000, R^2a = 0.094$ ] and total support models [ $F(4,99) = 2.938, p = 0.024, R^2a = 0.073$ ].

Table 2

*Comparison of Stressor Events and Perceived Social Support in G1 and G2 (n = 100)*

Variables	G1 (n = 50)	G2 (n = 50)	Test	Cohen's <i>d</i>	p-Value*
	Average (SD)	Average (SD)			
<b>Stressor Events</b>					
Overall Context	36.78 (13.13)	25.67 (12.34)	4.36	0.87	< <b>0.0001</b>
Family Context	19.08 (09.93)	12.67 (09.49)	3.30	0.66	<b>0.0013</b>
Children-Related Factors	38.20 (17.69)	21.00 (15.81)	5.13	1.03	< <b>0.0001</b>
Family Interactions	32.83 (19.95)	14.17 (15.82)	5.18	1.04	< <b>0.0001</b>
Total Stressors	29.63 (08.33)	17.91 (08.12)	7.13	1.43	< <b>0.0001</b>
<b>Social Support</b>					
Community Resources	68.14 (17.45)	69.00 (20.89)	-0.22	0.05	0.8243
Social-Relationships Support	26.83 (09.72)	31.35 (08.94)	-2.42	0.48	<b>0.0174</b>
Total Social Support	33.19 (09.32)	37.14 (08.27)	-2.24	0.45	<b>0.0270</b>

Note. \*p-Value refers to Student's t test /  $\leq 0.05$ ;

G1 = Women/Mothers presenting with recurrent depression history; G2 = Women/Mothers presenting without psychiatric disorders.

Table 3  
*Associations among Depression, Sociodemographic Variables, Stressor Factors, and Perceived Social Support (n = 100)*

VARIABLES	Depression		Schooling		Marital Status		Social and Economic Class	
	Test	p-Value*	Test	p-Value*	Test	p-Value*	Test	p-Value*
<b>Stressors</b>								
Overall Context	2.958	<b>0.004</b>	-3.625	<b>&lt; 0.001</b>	2.848	<b>0.005</b>	-4.730	<b>&lt; 0.001</b>
Family Context	3.103	<b>0.003</b>	1.549	0.125	1.369	0.174	-1.985	<b>0.050</b>
Children-Related Factors	3.864	<b>&lt; 0.001</b>	0.827	0.410	0.223	0.824	-0.848	0.398
Family Interactions	1.603	0.112	0.323	0.747	-3.494	<b>&lt; 0.001</b>	-1.392	0.167
Total Stressors	4.496	<b>&lt; 0.001</b>	-0.221	0.862	0.334	0.739	-3.528	<b>&lt; 0.001</b>
<b>Social Support</b>								
Community Resources	-0.821	0.414	-0.193	0.847	-1.338	0.184	0.590	0.557
Social-Relationships Support	-0.803	0.424	2.348	<b>0.021</b>	0.128	0.899	0.695	0.489
Total Social Support	-0.997	0.321	2.023	<b>0.046</b>	-0.346	0.730	0.821	0.414

Note. \*p-Value refers to linear regression analysis/ $p \leq 0.05$ .

## Discussion

Comparison between G1 and G2 sociodemographic profiles showed a significant correlation among recurrent maternal depression, less schooling, and single parenting, in agreement with results verified in Campbell et al. (2009) study, which established a significant correlation among absence of a father, less schooling, low social and economic status, and severe depressive episodes. These findings suggest the presence of specific sociodemographic characteristics, which relate to depressive women/mothers and their families' vulnerability.

G1 women/mothers presented with recurrent depression. Thus, this group consequently presented difficulties that persisted over time, which may have negatively influenced women/mothers' level of schooling and employability. These data are supported by WHO's findings (2012) on how depressive disorders negatively impact individuals.

Sociodemographic variables descriptive analysis convergently verifies the establishment of significant differences between groups regarding Overall Context stressors-factors that include social and economic stressors. Regarding remaining G1 and G2 stressor event comparisons, a higher number of total G1 stressor events and factors was found. Most factors

showed higher effect size. Based on these data, future studies are expected to show an increase in the number of stressors factors for 75% to 92% of depressed women/mothers. This implies their families' exposure to multiple stressors, as supported by Lopez-Duran et al. (2012) study.

After confirming significant sociodemographic variable and stressor factor differences between groups, analyzing the influence of depression and sociodemographic variables in women/mothers through an explanatory model allowed for identifying depression as a significant condition for total stressor events, overall context, family context, and children-related factors, regardless of other tested sociodemographic variables. Thus, despite co-existence of stressor factors in the family context of depressed women/mothers, depression poses a significant negative influence, as pointed out by Psychogiou and Parry (2014) in their study of family routine organization and by Pizeta (2014) and Weissman et al. (2004) in their studies on developmental outcomes.

This significant correlation among depression in women/mothers, family context stressors, children-affecting stressors, and total stressor-affecting factors also verifies comparison of G1 and G2 data on these factors. Comparison showed that depressed women lived with a higher number of stressors.

Thus, differences between groups can be explained by the presence of depression. They have also been established in studies including underprivileged law enforcement-involved depressive parents (Mickelson & Demmings, 2009), verbal intelligence, and overall learning problems (Kersten-Alvarez et al., 2012; Weissman et al., 2004).

Few studies have been able to include and show significant correlations between depression and family context stressor events affecting children, which suggests that studying isolated factor events may not clarify depression's significant influence on families and their lives. This study contributes by demonstrating the combined and cumulative influence of events on the family environment of depressed women/mothers.

However, depression was not shown to be a significant condition for explaining neither family interaction-related stressors nor perceived social support indicators in the analyzed data set. This points out the relevance of analyzing sociodemographic variables verified as significant.

Differences between G1 and G2 regarding family interaction-stressors were also shown, as supported by Chen and Johnston's study (2007), which indicated the presence of a hostile environment filled with negative reactivity. However, depression of women/mothers was not considered in such study's tested explanatory model as a significant variable for said stressor factor. In studying family interaction-related stressors, literature has focused on the presence of marital conflict as an event affecting both non-specific families (Sá et al., 2010; Vitolo et al., 2005) and families living with depression. The latter could also be correlated to women with less schooling, separation, and a higher number of overall stressor events (Kersten-Alvarez et al., 2012). It is worth noting that, as supported by the aforementioned studies, studying relationships in the family environment and stability in family dynamics is paramount. When correlated to family configuration (single or two-parent families), these factors constitute a complex scenery with multiple risk factors for depression as well (Psychogiou & Parry, 2014).

Complexity of adverse variables affecting the environment of families living with maternal depression can also be seen when analyzing perceived social support comparisons between G1 and G2. There are also significant differences between the total social support and social-relationships support categories, which shows average effect size. Based on these data, future studies are expected to show an increase in the number

of perceived social support resources for 67% of non-depressed women in comparison to depressed women. This finding supports the relevance of investing in benefit of social support for depressed women.

Significant social support differences have also been identified by Mickelson and Demmings (2009) – who verified the correlation among depression in women, low social support, and a higher number of acute stressors, including marital and interpersonal issues – and Gerkenmeyer et al. (2011) – exclusively regarding low social support. However, this study has shown a correlation between schooling in women/mothers and perceived support factors, namely: women/mothers having better schooling was an explanatory factor for more social-relationships support and a higher total amount of perceived support, regardless of the depression variable. Data have thus shown that access to institutional services was as an extra-familial support factor. However, assessing personal support and intervening to offer more of said support to women/mothers, especially to those with less schooling, is paramount.

In comparison to G2, the presence of women/mothers with less schooling, lack of a partner, fewer social and economic resources, more stressor events and less social support in G1 suggests that families living with recurrent depression are exposed to combined adverse factors and see themselves as receiving less personal support. This constitutes a vulnerable group, as supported by the meta-analysis in Goodman et al. (2011) study. Differences in sociodemographic variables suggest that depressed women may have fewer years of schooling, lack partners, and/or come from underprivileged social and economic classes with fewer resources, as shown in this and other studies (Campbell et al., 2009; Tompson et al., 2010). Sociodemographic factors may also independently favor more stressor events and less perceived social support. We thus highlight the relevance of health services being able to cover multiple indicators associated to the health of women/mothers with recurrent depression and their living conditions.

Particularly, by assessing multiple risk and protection co-existing factors in a same population sample, this study has contributed to establishing the specific life setting of women/mothers presenting with depression. In agreement with a developmental psychopathology perspective, we believe these findings may favor the creation of prevention and intervention public policies that help ease the burden of stressor factors.



## Conclusion

In line with this study's objectives, we have identified differences in sociodemographic profile, presence of stressor events, and social support as perceived by women/mothers presenting with recurrent depression, as compared with women/mothers presenting without psychiatric disorders. We have also verified that depression correlates to the presence of a higher number of stressor events, which indicates women/mothers living with depression do so in a particular life setting. Correlation between less schooling and less perceived social support, regardless of depression, signals this variable's relevance for the development of public policies on mental health.

Analyzing some of this study's method limitations is also warranted, including its cross-sectional design, the lack of homogeneity in groups, and the fact that women/mothers were used as the sole source of information for this study's variables. Nonetheless, method concern translated into the selection of a Brazilian setting-appropriate systematic participant mental health evaluation instrument, inclusion of a broad set of stressors and support factors, and data collection and analysis performed by trained researchers. Additionally, statistical analysis allowed for verifying the impact of sociodemographic variables differentiating both groups on analyzed variables, namely stressor events and perceived social support.

In summary, identifying living conditions as containing a higher number of cumulative stressor events and less perceived social support for women/mothers presenting with recurrent depression indicates the need for future studies including information on different moments in time in the lives of women/mothers presenting with depression and their children. It also warrants the need for including other sources of information regarding family environment.

As a relevant development for mental health practices, we suggest the creation of public policies and strategies that focus on all of the multiple indicators seen in the lives of depressed women/mothers, including sociodemographic conditions linked to a higher number of stressor events and less perceived social support.

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