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**PSYCHOSOCIAL PREDICTORS OF DEPRESSION IN ELDERLY  
PATIENTS OF A BRAZILIAN HEALTH  
UNIT**

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***Abstract***

In a community, depression can affect 30% to 45% of the elderly people. The consequences of this disease in the third age are numerous and adverse. Many researches have reported that depression is associated with a set of psychosocial factors. In this context, the perceived social support and general self-efficacy occupy an important position. Hence, the aim of this study is to confirm if the perceived social support and the general self-efficacy are predictors of depression in Brazilian senior citizen patients of a Health Basic Unit. The sample comprised 144 elderly people (M age=69.3; SD=6.61) of both genders. The data were collected through a questionnaire which included socio-demographic questions and scales for the studied psychosocial dimensions. The results showed that perceived social support and self-efficacy are predictors of depression in the studied Brazilian elderly. Future interventions under the scope of mental health promotion and depression prevention in elderly people must consider these determinants as a way to increase their efficacy.

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**Keywords:** Depression, Psychosocial Predictors, Brazilian Elderly.



## 1. Introduction

The consequences of depression in old age are numerous and adverse. Among elder people, depression affects especially the ones with chronic diseases and cognitive disabilities, aggravating the results of some diseases (Alexopoulos, 2005). In this stage of the life course, depression is associated with the raise in health care costs, the decrease of the physical capacity, and the increase of mortality rates (Alexopoulos, 2005; van Melle, 2004).

Many researches have reported that depression is associated with a set of psychosocial factors. According to Alexopoulos (2005), psychosocial adversities, such as impoverishment, disability, isolation, relocation and grief contribute to physiological changes that increase the susceptibility to depression or unleash it in vulnerable elder people. In this context, the perceived social support and self-efficacy have occupied an important position (Marino, Sirey, Raue, & Alexopoulos, 2008; Paukert et al., 2010). For example, Li, Theng and Foo (2015) have observed that social support (along with resilience) is one of the most influential factors of depression in elder people. Also, the study by Olangunju et al. (2015) verified a strong association between the depression's severity and the informal social support perceived by the elderly. The importance of social support in depression prevention and decrease in elder people was found as well in Muramatsu, Yin and Hedeker's (2010) research. In the third age, social support and depression may also interact and, together, they may predict the chance of survival to a heart attack (Frasure-Smith et al., 2000). Regarding self-efficacy, it has been pointed out both as a predictive variable and as a depression mediator (Arnsteina et al., 1999; Turner, Ersek, & Kemp, 2005). For example, Turner, Ersek and Kemp's (2005) study have revealed that self-efficacy is negatively and significantly associated with depression in retired elders with chronic pain. The research results by Maciejewski, Prigerson and Mazure (2000) show that self-efficacy mediates the relation between stressful events and depression. According to the social cognitive theory by Bandura (1986), people with high levels of self-efficacy and positive results expectations are less inclined to suffer with depression than the ones who present lower levels in this construct.

## 2. Problem Statement

Depression is a common disease in elderly people – it is reported by 6% to 9% of this age group in general health care appointments (Alexopoulos, 2005). In many authors' opinion (e.g Alexopoulos et al., 2001; Gureje, Kola, & Afolabi, 2007), depression reaches from 30% to 45% of the elderly people in community. According to Büchteman, Luppá, Bramesfeld and Riedel-Heller (2012), high depression rates in old age are not as high as the ones found in younger people. However, in this stage of the life cycle, depression has a bad prognostic because it has a floating and chronic course (Büchtemann et al., 2012; Licht-Strunk et al., 2007).

## 3. Research Questions

Are social support and general self-efficacy predictors of depression in Brazilian elderly patients in a Health Basic Unit

## 4. Purpose of the Study

The aim of this article is to confirm if perceived social support and general self-efficacy are depression predictors in Brazilian elderly patients in a Health Basic Unit.

## 5. Research Methods

### 5.1. Participants

One hundred and forty-four elderly people participated in this study. They were all patients of the Health Basic Unit at Granja do Torto (Brasília, Brazil), with an average age of 69.3 years (SD=6.61). The sample was consecutive.

### 5.2. Variables and Instruments

- Socio-demographic characteristics:

Colour: It was asked directly for an open response, and subsequently categorized in “white”, “pardo” (“browns” or “of mixed colour”), “Asian” and “indigenous”.

Age: It was asked directly and for an open response and subsequently categorized (60-69 years, 70-79 years-old, 80-89 years-old).

Education: It was collected through self-report with the question “level of education?”. The answer options were: none, 1-3 years, 4-7 years, 8 years or more. It was categorized in a dichotomous form (less than 8 years of schooling, 8 years of schooling or more).

Marital status: It was collected through the question “marital status?”. The options were: single, married, divorced, in a stable union, divorced and widowed. It was then categorized in a dichotomous form (with or without a partner).

Occupational situation: It was collected through the questions “do you work?” and “are you retired?”. It was later categorized in a dichotomous form (active or inactive).

Number of people from other generations that you live with: The question was “who do you live with?”. It was then dichotomized (1 generation and 2 or more generations).

- Psychosocial variables:

Depression: It was collected through the Center for Epidemiological Studies Depression Scale (CES-D) (Randloff 1977) from the Brazilian version by Silveira and Jorge (1998). This instrument has 20 items and the answers are quoted from 0 to 3 (from rarely or never to most of the time or all the time), with 4 items in reverse quotation. Some examples of the items are “I felt scared” and “I felt happy”. The Cronbach’s alpha of the scale was 0.86.

General Self-Efficacy: It was evaluated through the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1993) from the Brazilian version by Sbicigo, Teixeira, Dias and Dell’Aglío (2012). The scale has 10 items and the answers are quoted from 1 to 4 in a Likert scale. Some of the items are: “I have confidence to do well in unexpected situations” and “I can usually face any adversity”. The Cronbach’s alpha of the scale was 0.90.

**Social Support:** It was evaluated through the translated and adapted version from the original Social Provisions Scale (Cutrona, & Russell, 1987), which has 24 items using four Likert points of response (ranging from strongly disagree, which was quoted as 1, to strongly agree, quoted as 4). Some of the items are: “if something bad happened to me, I could not count on anyone’s help” or “I feel responsible for another person’s well-being”. In this sample, the Cronbach’s alpha of the scale was 0.81.

### **5.3. Procedures**

The sample was recruited through the Health Basic Unit’s medical records at Granja do Torto (Brasília, Brazil) according to the following inclusion criteria: (1) being 60 years old or older and (2) being psychologically able to answer a questionnaire in an interview. The questionnaire was applied by properly trained interviewers (Medicine students at Catholic University of Brasília) at the participants’ houses, after they were addressed on the Health Basic Unit by the responsible doctor and agreed to participate in the research. All participants were informed of the investigation purpose and the data confidentiality issue was properly enlightened, as well as the voluntary nature of their participation on the research. The elderly who accepted to participate in the research could read and sign a free informed consent term. Additionally, the research was properly authorized by the Ethics Committee of Catholic University of Brasília and by Granja do Torto’s City Hall.

### **5.4. Analyses**

Regarding the sample characterization the data were obtained from descriptive statistics, like distributions and frequency analyses. First, we checked the Spearman’s correlation coefficients among the psychosocial variables: Self-efficacy, perceived social support, and the result variable of depression in order to know which predictors should be included on the regression analysis. Then, the linear regression analyses were conducted to identify the depression predictors. The data were analysed by using the Statistical Package for the Social Sciences, version 18.0. (SPSS, Inc., Chicago, Illinois, USA).

## **6. Findings**

### **6.1. Socio-demographic characteristics**

This research sample had a total of 144 elder participants who were patients of a Health Basic Unit at Granja do Torto (Brasília, Brazil). As shown on Table 1, the sample is mostly (58.3%) constituted by women. The age rate is 69.3 years old (SD=6,61) with participants being from 60 to 89 years old. The majority were white and brown people with less than 8 years of education; most of them have a stable partner, live with family members from another generation and do not work (they are retired). These characteristics can be observed with more details on Table 1, according to gender.

**Table 01.** Characterization of the sample according sociodemographic characteristics (N=144)

Variables	Men		Women	
	n	%	n	%
<b>Age</b>				
60-69 years	29	48.3	49	58.3
70-79 years	26	43.3	27	32.1
80-89 years	5	8.3	8	9.5
<b>Colour/Race</b>				
White	25	41.7	34	40.5
Parda (“browns” or of mixed colour)	26	43.3	40	47.6
Black/Asian/Indigenous	9	15.0	10	11.9
<b>Education</b>				
- 8 years	36	60.0	47	56.0
8 years or +	24	40.0	37	44.0
<b>Marital Status</b>				
Without partner	9	15.0	35	41.7
With partner	51	85.0	49	58.3
<b>Number generations (live)</b>				
1 generation	16	26.7	18	21.4
2 or more generations	44	73.3	66	78.6
<b>Occupation Activity</b>				
Yes	47	78.3	52	61.9
No	4	6.7	32	38.1

## 6.2. Linear regression analysis results- general self-efficacy and perceived social support as predictors of depression

Table 2 shows the correlations among the psychosocial variables: General self-efficacy, perceived social support, and the depression outcome. All correlations are significant ( $p$  range<.001) and in the expected direction ( $r$  range=-.408 to -.413).

Based on these correlations results, the possibility of these psychosocial variants to integrate the linear regression analysis was confirmed (Table 3).

**Table 02.** Spearman correlation coefficients between psychosocial variables and outcome variable

Psychosocial Predictors	Depression
General Self-efficacy	-.408**
Perceived social support	-.413**

$p < .01$

The results of the linear regression analyses for psychosocial variables (self-efficacy and perceived social support) as predictors of depression are presented in Table 3. These variables explained 28.3% of variance ( $\Delta oc^2$ , 141)=29.20,  $p = .000$ ). The elder participants who had higher levels of general self-efficacy ( $\beta = .37$ ) and perceived social support ( $\beta = .27$ ) had lower levels of depression.

**Table 03.** Linear regression results with general self-efficacy and perceived social support as predictors of depression

OUTCOME /PREDICTORS	$\Delta R^2$	$\Delta F$	$\beta$	$t$
<b>Depression</b>	.293	29.203***		
General self-efficacy			-.366	3.380***
Perceived social support			-.268	3.390***

$R^2 = .293$ ;  $R^2_{Adjusted} = .283$

<sup>1</sup>  $p \leq .10$ . \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

## 7. Conclusion

This paper aimed to confirm if perceived social support and general self-efficacy are predictors of depression in the studied elderly. These research results could confirm this hypothesis: Social support and self-efficacy are associated with depression in the elderly patients of the Health Basic Unit in the study. These results are similar to the ones found in other analyses. For example, Marino, Sirey, Raue and Alexopoulos (2008) concluded that subjective social support and self-efficacy associate with the global functioning of depressive people with chronic obstructive pulmonary disease (COPD). Paukert et al. (2010) concluded that the relationship between the physical and subjective health and the depressive symptoms in elderly was simultaneously moderated by self-efficacy and social support. In other words, there is some interaction between self-efficacy and perceived social support, and these two variables together influence depression.

Regarding social support in particular, the association with depression is supported by many studies from different cultures. Olagunju et al. (2015) came to the same conclusions in a Nigerian elderly community; and Muramatsu, Yin and Hedeker (2010) in North-American elderly. Loneliness – a psychosocial dimension highly interconnected with social support – has been associated to severe depressive symptoms and to elevated depression levels in the follow-up on Dutch elderly (Holvastet al., 2015). The study results by Li, Theng and Foo (2015) make it possible to determine that social support has a strong role in the mediation between resilience and depression in Chinese elderly residents in Singapore. The research results by Frasure-Smith et al. (2000) revealed that social support and depression establish a significant interaction, and these two variables are predictors of the survival of patients with previous myocardium infarction. The results of many studies suggest that this perceived social support comes above everything in the informal sphere – more specifically family and friends. The study by Olagunju, Olutoki, Ogunnubi and Adeyemi (2015) showed that the severity of depression in elderly people is significantly correlated with social support availability from significant people and family. Muramatsu, Yin and Hedeker (2010) also determined that there is a predominant role of informal support from the family (other than from the spouse) and from friends in the elderly's low levels of depression. In conclusion, we consider that these results make sense because it is natural that those elderly who perceive themselves as having social support in a stage of life in which they frequently experience adverse events (e.g. loss of autonomy and functionality, grief after the death of a spouse, etc.) are the ones who best preserve mental health and, thus, avoid depression.

In relation to self-efficacy, the results that reveal a negative and significant association between this variable and depression are in accordance with Bandura (1986) and his Cognitive Social Theory. In addition, these results match with other studies which reveal that self-efficacy is a predictor and a mediator of depression. In addition, these results match with other studies which reveal that self-efficacy is a predictor and a mediator of depression. For instance, Arnsteina et al. (1999), as well as Turner, Ersek and Kemp (2005) demonstrate that self-efficacy has a mainly mediator effect between stressful life events and depression (Maciejewski, Prigerson, & Mazure, 2000). If self-efficacy involves the individual belief in their capacity to perform a specific action and reach the desired result (Bandura, 1997), it is understood that the elderly who possess this psychological resource are the ones who are mentally better, not presenting depressive symptomatology and depression.

This research bears some limitations, namely the possible memory bias related to depression, like when the elderly were asked to remember a series of events in the last week. We also consider important the development of longitudinal studies to better comprehend the evolution of depression in older age. Additionally, it would be pertinent to develop similar researches with larger samples. That was not possible in the study since the participants who accepted to participate are all the ones inside the community (Granja do Torto, Brasília, Brazil). Extending the research to other nearby contexts would be a good option in the future. In this case, it was not possible due to financial and logistical constraints which the study could not endure. Nevertheless, this is a pertinent study that tries to understand the psychosocial predictors of depression in Brazilian elderly from a Health Basic Unit.

We consider that it was pertinent to show that perceived social support and self-efficacy are psychosocial factors to consider in studies about depression in elderly people. Considering the burden of depression in the elderly, it is important to rely on the formal and informal social support, which must be strengthened in the family and other relevant people, as well as in community social institutions. This support must come from public policies which may assist the family or the community to help the elderly respond to the age needs in a more resilient way in order to avoid the development of depression. These results are important so that the future interventions under the scope of promoting the mental health and preventing depression in the Brazilian elderly integrate the increase in self-efficacy and social support as a form of enhancing their effectiveness.

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