Resumen

El objetivo de este estudio fue identificar los predictores psicosociales de la autoeficacia general en una muestra de ancianos brasileños. La autoeficacia ha sido reportada como una variable de gran importancia para la salud de las personas mayores. Entre las personas mayores, los niveles más altos de autoeficacia se asocian con menor incapacidad, malestar psicológico, síntomas depresivos, buena salud percibida y mayor adaptación al dolor. En este estudio participaron 144 pacientes de la Unidad Básica de Salud en Granja do Torto (Brasilia, Brasil). La muestra era consecutiva. Los datos fueron recogidos a través de un cuestionario que incluyó preguntas sociodemográficas (color, edad, educación, estado civil, situación laboral y número de personas de otras generaciones con las que mora) y escalas para las dimensiones psicosociales estudiadas (estado de salud autopercibido, apoyo social percibido, depresión y autoeficacia general). La muestra estaba constituida mayoritariamente por mujeres (58.3%). La edad promedio era de 69.3 años (SD= 6.61), con edades que oscilaban entre 60 y 89 años. La mayoría eran blancos y morenos, con menos de 8 años de educación; tenían un compañero estable, vivían con familiares de otra generación y no trabajaban (estaban jubilados). El estado de salud autopercibido, el apoyo social percibido y la depresión explicaron el 37.2% de la varianza (ΔF (3, 140)= 29.20, p = .000). Los participantes que tenían un nivel más alto de apoyo social percibido (β= .25), un estado de salud autopercibido positivo (β= .30) y niveles más bajos de depresión (β= -.28) tenían niveles más altos de autoeficacia general. Es muy importante promover acciones comunitarias que ayuden a las personas mayores a disminuir los niveles de depresión y a aumentar los niveles de estado de salud autopercibido y el apoyo social percibido. Por lo tanto, se contribuirá al aumento de la autoeficacia en las personas mayores, una variable extremadamente importante en la salud y el bienestar de esta población específica.

Palabras clave: Autoeficacia; Predictores psicosociales; Personas mayores.

Abstract

The aim of this study was to identify the psychosocial predictors of general self-efficacy in a sample of Brazilian elderly people. Self-efficacy has been reported as a variable of great importance for elderly people's health. Among them, higher self-efficacy levels are associated with lower inability, psychological distress, depressive symptoms, good perceived health and higher pain adjustment. One hundred and forty-
four patients participated in this study. They were all patients of the Health Basic Unit at Granja do Torto (Brasília, Brazil). The sample is consecutive. The data were collected through a questionnaire that included sociodemographic questions (colour, age, education, marital status, occupational situation and number of people of other generations that you live with) and scales for the studied psychosocial dimensions (self-perceived health status, social support, depression, and general self-efficacy). The sample is mostly (58.3%) constituted by women. The average age 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; they have a stable partner, live with family members of another generation, and do not work (they are retired).

Self-perceived health status, social support and depression explained 37.2% of variance (∆F(3, 140)= 29.20, p = .000). The participants who had a higher level of perceived social support (β= .25), a positive self-perceived health status (β= .30) and lower levels of depression (β= -.28) had higher levels of general self-efficacy. Future interventions under the scope of health promotion in elderly people must consider these determinants in order to increase their efficacy. It is very important to promote community actions that help elderly people to decrease depression levels and increase levels of positive self-perceived health status and perceived social support. Thus, we will contribute to self-efficacy increase in elderly people, an extremely important variable in health and well-being among this specific population.

Keywords: Self-efficacy; Psychosocial Predictors; Elderly People.

The self-efficacy concept was introduced by Bandura and it is the belief that it is possible to control our own motivation, thinking processes, emotional states, and behavior patterns (Bandura, 1994; 1997). This construct defines that people tend to avoid the situations that they think surpass their capabilities and to face the ones they think they are capable of managing (Ribeiro, 1995). Thereby, the higher the efficacy perception, the more persistent is the effort towards a specific behavior (Costa & Leal, 2005). Self-efficacy can be understood as a global and stable belief of being capable of controlling certain environmental challenges (Schwarzer & Jerusalem, 2000). That is, the authors agree that self-efficacy is an individual belief in one’s own abilities and competencies to deal with external demands.

Many studies revealed that self-efficacy is associated with many health issues, namely anxiety, neuroticism, depression (Muris, 2002), traumatic injuries recover (Bunketorp et al., 2006; Wong, Chan & Chair, 2010), response types in patients with cancer (Luszczynska, Gutiérrez-Dôna, & Schwarzer, 2005; Luszczynska, Mohamed, & Schwarzer, 2005), glycemic control (Gao et al., 2013), life quality perception (Luszczynska, Gutiérrez-Dôna & Schwarzer, 2005), psychosocial adjustment to chronic disease (Dahlbeck & Lightsey, 2008), oral health care (Souza, Silva & Galvão, 2002), acquisition of many healthy habits (healthy eating, physical exercise practice, smoking interruption and decrease of alcohol consumption) (Cardoso, 2006), and adoption of safe sexual behavior (Pallonen, Williams, Timpson, Bowen & Ross, 2008; Rogado & Leal, 2000).

Related specifically to the elderly, many studies point to the same direction: higher self-efficacy levels are associated with lower inability, psychological distress, depressive symptoms, the decrease of basic and instrumental activities in daily life, good perceived health, higher pain adjustment, and more expended effort in required activities, personal adjustment and the capability of confrontation resources mobilization (Rabelo & Cardoso, 2007). In the gerontological population, self-efficacy still supports the maintenance of healthy behaviors (ex: physical activity practice, good nutrition) (McAuley et al., 2011; Sant’Anna da Silva
& Laurent, 2010), personal perspective of longevity (Sant'Anna da Silva & Laurent, 2010), fear of falling (Li et al., 2002), and the practice of group health promoting activities (Kono et al., 2004).

According to Bandura (2004), positive cognitive re-evaluations that focus on one’s own life aspects and that are personally controllable can increase the perceived efficacy, which activates many adaptive processes in facing health chronic conditions. This process is essential in the elderly – their age is when the number of chronic diseases increases and aggravates. The scientific literature has made a strong association between general self-efficacy and other psychosocial factors. Examples of these dimensions are the perceived social support (Bonsaksen, Lerdal, & Fagermoen, 2012; Warner et al., 2011), anxiety (Tahmassian & Moghadam, 2011), the disease perception and psychological suffering (Connolly et al., 2014), and depression (Dilorio et al., 2006; Tahmassian & Moghadam, 2011; Qian & Yuan, 2012). In this context, the goal of this paper is to identify the psychosocial predictors in general self-efficacy in elderly patients of a Brazilian Health Basic Unit. Psychosocial predictors are related to psychological, social, cognitive, psychopathological and mental health factors (among the variables under study) that may have a predictive value in self-efficacy.

Measures

Socio-demographic characteristics.

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

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

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

Marital status. It was assessed through the question “What is your marital status?” The answer options were: single, married, divorced, in stable union, separated 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 of 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 (possible predictors).

Social Support. It was assessed by 24 items of the translated and adapted version of the original Social Provisions Scale (Cufrona & Russell, 1987). The items response format was a 4-point Likert scale ranging from “strongly disagree” to “strongly agree”. 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 .81.

Depression. It was assessed by the Center for Epidemiological Studies Depression
Scale (CES-D) (Randloff, 1977) (Brazilian version by Silveira & 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 .86.

Self-perceived health status. It was assessed by the question “How do you evaluate your health condition?” The answer options were “very bad”, “bad”, “reasonable”, “good” and “very good”.

Outcome variable.

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’Aglio (2012). The scale has 10 items and the answers are quoted from 1 to 4 in a Likert scale (1= strongly disagree and 5= strongly agree). 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.

Procedures

The sample was recruited using the medical records on the Basic Health Unit of Granja do Torto (Brasília, Brazil) according to the following inclusion criteria: (1) being 60 years old or older, and (2) being psychologically capable of responding to the interview questionnaire. Properly trained interviewers (Medicine students from Universidade Católica de Brasília) administered the questionnaire. The interviews took place at the participants’ houses after being approached on the Basic Health Unit by the responsible doctor and having agreed to participate in the research. All the participants knew the purpose of the investigation. The data confidentiality as well as the volunteer participation in the research were properly clarified. The patients who agreed to participate in the research read and signed the free informed consent form. Additionally, the research was authorized by the Ethics Committee of Universidade Católica de Brasília and by Granja do Torto’s City Hall.

Analyses

In relation to sample characterization, the data were obtained from descriptive statistics, like distribution and frequency analyses. First, in order to select which variables should be included in the regression analyses, we conducted Spearman’s correlation coefficients between psychosocial variables and self-efficacy. Subsequently, the linear regression analyses were conducted to identify the general self-efficacy predictors. The data were analyzed by using the Statistical Package for the Social Sciences, version 18.0. (SPSS, Inc., Chicago, Illinois, USA).

Results

Participants characteristics

This research sample had a total of 144 elderly patients who were patients at the Health Basic Unit at Granja do Torto (Brasília, Brazil). As shown on Table 1, the sample is mostly (58.3%) constituted by women. The average age 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; they have a stable partner, live with family members of another generation, and do not work (they are retired). These characteristics can be observed on Table 1 with more details, according to gender.

Psychological predictors of general self-efficacy

Table 2 shows the correlations among the psychosocial variables and the self-efficacy. All correlations are significant (p_range=
.001 to < .001) and in the expected direction ($r_{\text{range}} = .348$ to -.408).

Based on these correlations results, the psychosocial variables were selected to be included in the regression analysis.

The results of the linear regression analyses for psychosocial variables as predictors of self-efficacy are presented in Table 3. These variables (self-perceived health status, social support and depression) explained 37.2% of variance ($\Delta F(3, 140) = 29.20, p = .000$). The participants who had a higher level of perceived social support ($\beta = .25$), a positive self-perceived health status ($\beta = .30$) and lower levels of depression ($\beta = -.28$) had higher levels of general self-efficacy.

**Discussion**

This article aimed to identify the psychosocial predictors in general self-efficacy in the Brazilian elderly. The results show that self-perceived health status, perceived social support and depression are significantly associated with general self-efficacy on the studied sample. The more positive the self-perceived health status, the bigger the levels of perceived social support, and the lower the levels of depression, the higher are the levels of general self-efficacy in elderly patients who were analyzed at the Health Basic Unit. There is no association between socio-demographic variables (colour, age, marital status, etc.) and self-efficacy.

Related to the influence of self-perceived health status in general self-efficacy, we did not find studies that could analyze this relation directly, but some of them do that indirectly. For example, the study by Connolly et al. (2014) showed that one of the factors more associated with self-efficacy in ill people who are recovering from severe traumas was the disease perception. In other words, a better perception of the real characteristics of the disease are positively associated with higher levels of self-efficacy in those sick people. That means that in some way this disease perception integrates a health status perception. We believe that these results make sense, because whether the self-efficacy is a global and stable belief of being capable of controlling certain environmental challenges (Schwarzer and Jerusalem, 2000), it is understandable that this variable is favoured and even potentialized by a better perception of the sickness and health status.

Regarding the association between perceived social support and self-efficacy, the results are congruent to the scientific literature. Other studies, for example the one by Bonsaksen, Lerdal and Fagermoen (2012), showed that social support is directly associated with self-efficacy in adults with chronic diseases. The study by Warner et al. (2011) about the relation between self-efficacy and the perceived social support in elderly people found that there is a synergy between these two variables: The ones with a low level of self-efficacy had less probability of being active, even when having high levels of social support. Similarly, the elderly with a low level of perceived social support had a strong probability of being inactive, even with high levels of self-efficacy. In other words, the results of this study reveal that these two cognitive dimensions interact, influence each other, and work together in order to promote activeness on elderly people. These results raise awareness to the need of evaluating this interaction regarding other health behaviors, having in mind the promotion of integral health in elderly people.

The evidence of depression as a predictor of self-efficacy has been reported in many studies and in different scopes and samples, namely related to academic performance (Tahmassian & Moghadam, 2011), cancer experiencing (Qian & Yuan, 2012), epilepsy medical conditions (Dilorio et al., 2006), among others. For example, the results of the study by Qian and Yuan (2012) revealed that the patients with cancer who had mild depression, better physical function and higher social support were those who presented the best level of self-efficacy related to self-care. Depression was the factor which had the most influence in this model, com-
pared to self-efficacy predictors. The study by Dilorio et al. (2006) also revealed that the depression symptoms were the main predictors of self-efficacy in people with epilepsy. If self-efficacy is related to the individual belief in their capabilities to perform a specific action and achieve the wanted result (Bandura, 1997), it is understood that the elderly who are not depressed are the ones who can better potentialize these beliefs in their own capabilities.

Limitations

This study has some limitations, namely the possible memory bias related to depression, like when the elderly were asked to remember events of the last week. We also consider important the development of longitudinal studies in order to better understand the evolution of general self-efficacy in elderly people. Additionally, it would be relevant to develop similar researches with larger samples. That was not possible in this study because the patients 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 future option. In this case it was not possible due to financial and logistic constraints which the study could not endure. Nevertheless, this is a pioneer study that tries to understand the psychosocial predictors of general self-efficacy in the Brazilian elderly population.

Conclusion

Psychosocial factors, such as self-perceived health status, perceived social support, and depression are malleable and can be changed by treatment (e.g. depression) or educational and skills-building interventions (e.g. perceived social support). Therefore, it is very important to promote community actions that help elderly people to decrease depression levels and increase levels of positive self-perceived health status and perceived social support. Thus, we will contribute to self-efficacy increase in elderly people, an extremely important variable in health and well-being among this specific population.
Table 1
**Characterization of the sample according sociodemographic characteristics and sex (N=144)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-69 years</td>
<td>29</td>
<td>48.3</td>
<td>49</td>
<td>58.3</td>
</tr>
<tr>
<td>70-79 years</td>
<td>26</td>
<td>43.3</td>
<td>27</td>
<td>32.1</td>
</tr>
<tr>
<td>80-89 years</td>
<td>5</td>
<td>8.3</td>
<td>8</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Colour/Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>25</td>
<td>41.7</td>
<td>34</td>
<td>40.5</td>
</tr>
<tr>
<td>Parda (‘‘browns’’ or of</td>
<td>26</td>
<td>43.3</td>
<td>40</td>
<td>47.6</td>
</tr>
<tr>
<td>mixed colour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/Asian/Indigenous</td>
<td>9</td>
<td>15.0</td>
<td>10</td>
<td>11.9</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 8 years</td>
<td>36</td>
<td>60.0</td>
<td>47</td>
<td>56.0</td>
</tr>
<tr>
<td>8 years or +</td>
<td>24</td>
<td>40.0</td>
<td>37</td>
<td>44.0</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without partner</td>
<td>9</td>
<td>15.0</td>
<td>35</td>
<td>41.7</td>
</tr>
<tr>
<td>With partner</td>
<td>51</td>
<td>85.0</td>
<td>49</td>
<td>58.3</td>
</tr>
<tr>
<td><strong>Number generations (live)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 generation</td>
<td>16</td>
<td>26.7</td>
<td>18</td>
<td>21.4</td>
</tr>
<tr>
<td>2 or more generations</td>
<td>44</td>
<td>73.3</td>
<td>66</td>
<td>78.6</td>
</tr>
<tr>
<td><strong>Occupation Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>47</td>
<td>78.3</td>
<td>52</td>
<td>61.9</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>6.7</td>
<td>32</td>
<td>38.1</td>
</tr>
</tbody>
</table>
Table 2
**Spearman correlation coefficients between psychosocial variables and outcome variable (N=144)**

<table>
<thead>
<tr>
<th>Psychosocial Variables</th>
<th>General Self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-perceived health status</td>
<td>.348**</td>
</tr>
<tr>
<td>Perceived social support</td>
<td>.395**</td>
</tr>
<tr>
<td>Depression</td>
<td>-.507**</td>
</tr>
</tbody>
</table>

**p < .01

Table 3
**Linear regression results with self-perceived health status, perceived social support and depression as predictors of general self-efficacy (N=144)**

<table>
<thead>
<tr>
<th>Outcome / Predictors</th>
<th>ΔR²</th>
<th>ΔF</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Efficacy</td>
<td>.385</td>
<td>29.199***</td>
<td>.300</td>
<td>4.253***</td>
</tr>
<tr>
<td>Self-perceived health status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived social support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R² = .385; R²Adjusted = .372

***p ≤ .001

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