

ASSESSMENT OF PSYCHOLOGICAL WELL-BEING IN STROKE PATIENTS

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Stroke is one of the most common diseases worldwide with the most impact on patients' lives. The emergence of this sudden event has a significant impact when it comes to psychological well-being (PWB). The data we now present were obtained from a broader study of coping strategies and the assessment of PWB. In this poster, we take the opportunity to present the data obtained on the perception of PWB in victims of Stroke, assisted in the stroke units of two Portuguese reference district hospitals. To obtain these data, a sociodemographic questionnaire, a clinical form and the reduced version of the Psychological Well-Being Scales [1, 2] were applied. 159 individuals participated in this investigation, 94 males and 65 females, with a mean age of 66.35 years. The main results obtained show statistically significant differences in PWB as a function of age, gender, marital status and educational attainment. From these data, we draw implications for a better adequacy of psychological interventions with people who are victims of stroke. The increasing incidence of this pathology implies a more active promotion in terms of Psychological health, so that survivors can perceive the benefit of using adaptive behaviors that promote greater PWB in their lives.

Keywords: *Stroke patients, psychological well-being, coping strategies, psychological interventions, statistically significant differences, psychological health.*

EVALUAREA BUNĂSTĂRII PSIHOLOGICE LA PACIENȚI CU AVC

Accidentul vascular cerebral este una dintre cele mai frecvente boli la nivel mondial, cu cel mai mare impact asupra vieții pacienților. Apariția acestui eveniment brusc are un impact semnificativ atunci când vine vorba de bunăstarea psihologică (PWB). Datele pe care le prezentăm acum au fost obținute dintr-un studiu mai larg al strategiilor de coping și evaluarea PWB. În acest poster, profităm de ocazie pentru a prezenta datele obținute cu privire la percepția PWB la victimele AVC, asistate în unitățile de AVC din două spitale raionale de referință portugheze. Pentru obținerea acestor date s-au aplicat un chestionar socio-demografic, o formă clinică și versiunea redusă a Scalelor de bunăstare psihologică [1, 2]. La această anchetă au participat 159 de persoane, 94 de bărbați și 65 de femei, cu o vârstă medie de 66,35 ani. Principalele rezultate obținute arată diferențe semnificative statistic în PWB în funcție de vârstă, sex, stare civilă și nivel de educație. Din aceste date, tragem implicații pentru o mai bună adecvare a intervențiilor psihologice cu persoanele care sunt victime ale accidentului vascular cerebral. Incidența tot mai mare a acestei patologii presupune o promovare mai activă în ceea ce privește sănătatea psihologică, astfel încât supraviețuitorii să poată percepe

beneficiul utilizării unor comportamente adaptative care promovează un PWB mai mare în viața lor.

Cuvinte-cheie: accident vascular cerebral, bunăstare psihologică, strategii de coping, intervenții psihologice, diferențe statistic semnificative, sănătate psihologică.

Introduction

Stroke is a cerebrovascular disease responsible for a high percentage of mortality and disability worldwide [3]. The way this event happens, that is, suddenly, often causes an immeasurable impact on the lives of patients and those around them. In order to more concretely calculate the impact of this disease, it is important to know how the stroke interferes with the psychological well-being (PWB) of the survivors. At a time when there is so much talk about mental health, it is more important than ever to scientifically investigate hypotheses that may directly interfere with the psychological health of the population, particularly if the population has suffered a stress-enhancing event, such as a stroke. The care that rehabilitation institutions and programs have for PWB after stroke has been moderately neglected compared to motor symptoms and physical symptoms, with the more organic part being the focus of rehabilitation programs as well as the health services offered, to the sick. Given this reality, it seems important to boost PWB, in order to optimize the prognosis of patients, thus speeding up recovery [4].

Stroke: Definition and epidemiology

Stroke is, according to the World Health Organization (WHO), a sudden disease with a possible vascular origin that lasts for more than 24 hours, affecting a certain area of the brain, causing a neuronal compromise [5]. This neurological deficit can have an ischemic or hemorrhagic origin [6]; however, it's estimated that about 85% of strokes are of ischemic origin and 15% of hemorrhagic origin [7]. Strokes of ischemic origin imply the obstruction of a blood vessel. Within the group of ischemic strokes, Transient Ischemic Accidents (TIAs) are also highlighted, these are micro strokes and can be a strong indication that a larger stroke can arise at any time [8, 9]. On the other hand, there are hemorrhagic strokes, which occur when a blood vessel in the brain bursts and causes hemorrhage [8, 9].

Psychological Well-Being: Conceptual Operationalization

At the time of its creation, the WHO defined the concept of health as a complete state of physical, mental and social well-being, and not merely the absence of any disease or infirmity [10].

PWB can be defined as the emotional balance of each individual in the face of external experiences, that is, the well-being of the person itself as well as the well-being of others, a state of full well-being also includes knowing how to

deal with the life's adversities, with the emotions that arise, amplifying personal growth whenever possible [11]. According to Carol Ryff, the PWB integrates six dimensions that are interconnected with each other and, as a whole, give rise to the total PWB and consequently to what impacts it, these dimensions are autonomy, personal growth, positive relationships with others, the environmental domain, life purpose and self-acceptance. The PWB varies from person to person, according to Ryff sociodemographic factors such as education, age of the person and marital status have a significant weight, directly interfering with mental health [12]. To positive and/ or negative events throughout the life cycle. There is evidence that PWB acts as a protective factor in some diseases, since PWB is closely linked with the regulation of various underlying physiological and neurological systems [13]. Allied to this, human beings have some more specific protective factors, such as resilience and regular physical exercise [14], thus influencing the PWB.

Psychological Well-Being and stroke

People who suffer a stroke constantly experience feelings of anguish and malaise, this happens because this event often involves fundamental challenges to their identity [16]. The PWB does not only have a positive impact on mental health, as it is described as being a fundamental part of the successful rehabilitation of stroke survivors. At the same time, the prognosis of people who have a good PWB index turns out to be higher when compared to patients who do not have a positive well-being [17]. According to Rabelo & Néri [18], the population that suffers a stroke tends to present lower PWB compared to the general population. Specifically in the case of stroke, it is quite common for patients to manifest sequelae, when these remain over time; the PWB structures can suffer a setback [17]. After the occurrence of a stroke, some people seem more susceptible to psychological distress and others to a satisfactory PWB, this seems to be explained by the personalistic characteristics of each person, according to Dwan & Ownsworth [19] subjects with a more neurotic personality represent a greater risk of psychological distress after suffering a stroke. For stroke survivors, social support is crucial for their PWB [20]. Patients with a rich social support network tend to perceive the event differently and consequently show greater personal growth [18]

Method

The present investigation intends to deepen the knowledge about one of the deadliest diseases on our planet, specifically it is intended to know how the stroke impacts the PWB of survivors. For this, a general objective was formulated (Evaluate PWB levels in stroke victims). More two specific objectives to which it is intended to respond: (1) Evaluate whether there are differences between PWB levels depending on sociodemographic

characteristics such as age, gender, marital status, educational qualifications and place of residence; (2) Evaluate whether there are differences between PWB levels as a function of clinical characteristics such as type of stroke, period of hospitalization and sequelae.

With regard to **the sociodemographic characterization** of the investigation, it has an inherent sample of 159 participants, with an average age of 66.35 years, a standard deviation of 14.957, a mode of 71 years and a median of 68 years. The minimum age of the sample is 19 years and the maximum is 98 years. It was found that most of the participants in the sample are men 59.1% and 49.9% are women, of these 99.6% of the participants have Portuguese nationality, and 0.6% another nationality. Regarding marital status, 6.3% of the participants are single, 68.6% are married, 8.2% are divorced, 15.1% are widowed, and 1.9% are in a de facto relationship. With regard to residence, most participants (59.1%) live in a village, 14.5% in a town and 26.4% live in a city. With regard to the household, about 13.2% of the participants live alone, 49.1% of the participants describe that their household consists of two people, predominating this household, 20.8% of the households are composed of three people, 8.8% have four people, 3.8% describe that the household comprises five people or more, 4.4% of the participants were currently residing in a home. Regarding Literary Qualifications, most participants have schooled up to the 4th grade (57.2%), 11.9% have the 6th grade, 13.8% have the 9th grade, 8.2% have the 12th grade, 7.5% have a degree, 1.3% have a master's degree. About 89.9% of participants have children, while 10.1% report that they do not. With regard to professional status, 22.6% work full-time, 0.6% of participants are students, 9.4% were unemployed, 0.6% part-time, 64.2% are already retired and 2.5% assume they are in another situation, such as sick leave. Most respondents (64.8%) reported having had an Ischemic Stroke, 17.0% a Hemorrhagic Stroke and 18.2% reported having suffered a Transient Ischemic Stroke.

Participants who report having had a stroke less than a year ago are the bulk of the sample (80.5%), while those who assume they have had a stroke for more than a year are 19.5% of the sample. Following the stroke, participants who were hospitalized for 1 to 5 days were about 33.3%, with this interval of days being the most frequent, 5 to 10 days were hospitalized 24.5% of the participants, more than 10 days were 30.2%, at the as 11.9% of research participants mention not having been hospitalized. When asked if they had suffered sequelae from the stroke, 64.2% of the participants said yes and 35.8% assumed that they had not suffered sequelae. With regard to risk factors, the diagnosis of Arterial Hypertension (68.6) and dyslipidemia (69.2%) predominates, on the other hand, only 21.4% of the sample have Diabetes (type 1 or 2). Regarding the participants having a Cardiac Arrhythmia, 21.4% stated

that they had a cardiac arrhythmia and the majority did not have this condition (78.6). With regard to having a heart disease, only 13.8% had this clinical condition. As for the consumption of alcohol, tobacco or other substances, 37.7% confirm the consumption of at least one of these substances, but most participants (62.3%) deny any consumption. Regarding being overweight, 30.2% of the participants said they were overweight, while 69.8% said they were not overweight. As for the regular practice of physical exercise, the majority (69.2%) stress that they do not practice any type of physical activity. About 36.5% of the participants report having a physical or psychological health problem, but most of the sample (63.5%) denies any type of chronic problem in addition to the risk factors. With regard to psychological or psychiatric support, only 13.2% describe having support in this area.

Results

In the present investigation, for the PWB Scale – Reduced Version instrument, there was a minimum PWB value of 38 and a maximum value of 100, with an average of 71.20, a standard deviation of 11.10, and a mode of 76. (Table 1). According to the data obtained, it is possible to infer that the sample has a low PWB level. Regarding the levels of PWB between different **age groups**, it was possible to verify that in the Autonomy Dimension ($p = .57$), Middle Domain ($p = .69$), Positive Relationships ($p = .32$) and Self-Acceptance ($p = .42$) there were no statistically significant differences. On the contrary, in the Personal Growth dimension ($p = .00$), Life Goals ($p = .00$) there were statistically significant differences, the same happens in the Total dimension of the PWB, where it was possible to verify that the group of people aged up to 68 years old even have a higher PWB compared to the group of people who are older than 68 years old. Regarding the levels of PWB between **gender**, it was found that in the Autonomy ($p = .23$), Personal Growth ($p = .43$) and Positive Relationships ($p = .27$) dimension, there are no statistically significant differences, but gender males have higher averages of PWB in these three dimensions. Regarding the dimensions, Mastery of the Environment ($p = .03$), Life Goals ($p = .03$) and Self-Acceptance ($p = .001$), these show significant differences between the groups. As for the Total PWB ($p = .001$), significant differences were found between males and females, with males ($M = 90.03$) having higher mean values of PWB compared to females ($M = 65.50$). Regarding the Marital **Status variable**, it was found that the Autonomy, Personal Growth, Positive Relationships, and Self-Acceptance dimension did not present statistically significant differences between people with a partner and people without a partner. The opposite can be seen in the Environmental Mastery ($p = .02$) and Life Goals ($p = .05$) dimensions, which present significant differences between the groups. With regard to the total dimension of Well-being ($p = .03$) this presents significant

differences between them, with the group of Married people and in a de facto union registering higher PWB in relation to the group of Single, Divorced or Married people. Regarding the **Literary Qualifications variable**, in the dimensions Autonomy ($p = .92$), Mastery of the Environment ($p = .85$), Positive Relationships ($p = .40$), Acceptance of Self ($p = .45$) it is verified that there are no significant differences between people who studied until the 4th grade and people who studied after the 4th grade, however the latter group has a better level of PWB. As for the variables Personal Growth ($p = .00$) and Life Goals ($p = .00$) statistically significant differences were found, with the group with qualifications above the fourth year having better PWB levels. Regarding the **place of residence**, the dimensions Autonomy ($p = .84$), Mastery of the Environment ($p = .05$), Positive Relationships ($p = .88$), Life Goals ($p = .08$), Acceptance among themselves ($p = .07$) do not show statistically significant differences, on the contrary, the Personal Growth dimension ($p = .04$) shows a significant difference between the groups of place of residence. The total size of PWB ($p = .18$) does not show significant differences between the three places of residence. Regarding the **type of stroke and the dimensions of PWB**, the Autonomy dimension ($p = .90$), Mastery of the Environment ($p = .06$), Personal Growth ($p = .96$), Positive Relationships ($p = .70$), Life Goals ($p = .32$), Self-Acceptance ($p = .06$) and the variable of the total PWB do not present statistically significant differences between groups. According to the **Hospitalizations variable**, the Autonomy dimension ($p = .29$), Environment Mastery ($p = .15$), Personal Growth ($p = .89$), Positive Relationships ($p = .60$), Life Goals ($p = .49$), Self-Acceptance ($p = .52$) do not show statistically significant differences between groups, the same happens with the total PWB variable ($p = .08$) which does not show statistically significant differences between the group of people who do not were hospitalized and the group of people who required hospitalization. With regard to **Sequelae**, the dimensions Autonomy ($p = .50$), Personal Growth ($p = .76$), Positive Relationships ($p = .70$) do not present significant differences between the groups, the opposite is verified in the dimensions Mastery of the Means ($p = .00$), Life Goals ($p = .003$), Self-Acceptance ($p = .00$) that show significant differences between the groups. A statistically significant difference is also observed in the total PWB dimension ($p = .001$), with people who did not suffer from sequelae have a higher level of PWB when compared to people who suffered at least one sequela as a result of a stroke.

Discussion

In the present study, the sample revealed a **PWB level** of 71.20 (SD=11.10), and this value is part of the reference group of patients with psychopathology (M=63.84; SD=16.4), that is, this value indicates we know that this sample has a low PWB, which may indicate the presence of psychopathological symptoms.

This result is in line with others highlighted in the literature, revealing that stroke survivors demonstrate significantly lower PWB levels compared to groups of people without stroke [21, 18]. The group of people up to 68 years old has a higher PWB level compared to the group of people over 68 years old. This seems to be substantiated in the literature by indicators that people who have a job, that is, are of working age, have better PWB rates. Having a professional occupation thus seems to be a protective factor against a sudden event of this nature [22]. Patients who suffered a stroke a few months ago have a lower level of PWB, many patients during the data collection pointed out that fatigue was one of the most notorious sequelae, this fact may explain the lower PWB in this population [23]. Variables such as functional disability, some cognitive deficits, depressive symptoms, difficulties in reestablishing their identity, inability to perform some activities of daily living also seem to have a negative impact on PWB perceived by survivors (Rabelo & Néri, 2006). These results seem to reinforce the importance of psychological follow-up in post-stroke patients in order to promote a more resilient mental health capable of facing the adversities that a stroke requires [23]. With regard to the influence of each of the sociodemographic characteristics on PWB levels, differences were found between the **Genders**, with men having better PWB levels than women, data corroborated by the literature that mentions that women show a low PWB level, which can be justified by the fact that females suffer more sequelae than males, and sometimes require long-term care from others [24]. Regardless of having suffered a stroke or not, males always seem to have higher levels of PWB compared to the opposite sex [11, 15] especially because men seem to use of more strategies promoting better levels of PWB when exposed to stress - inducing situations [25]. Regarding marital **status**, the results obtained show that people with a partner have a higher PWB than single, divorced and widowed people. People who live alone in the period following the stroke seem to present greater psychological suffering; on the contrary, people who have a partner seem to have this characteristic as a protective factor against the development of mental disorders [23]. This characteristic of greater psychological suffering in people without a partner seems to be transversal to several diseases/ events [26]. In this study, subjects who have **qualifications** above the fourth year have higher levels of PWB compared to the group of participants with education up to the fourth year. Studies show that people with several years of schooling perceive higher standards of health, with lower levels of disease incidence, and a lower risk of mortality and disability from a disease that they may suffer throughout their life cycle. On the contrary, people with a low educational level tend to describe their health as being poor, have a lower life expectancy, and a lower belief in survival when they are sick [27] In addition

to educational qualifications, health education seems to be the key to reducing disparities between groups and consequently increasing the physical and mental health of populations, thus amplifying the PWB of current and future generations [27]. In this investigation, it was found that participants who had at least one **Sequelae** in the post-stroke period had low levels of PWB. Two of the most common sequelae after a stroke are Aphasia and Memory Problems/Slowing of Thought. The literature suggests that these sequelae have a negative impact on the functional capacity of patients, because of which the sequelae can be perceived in a less resilient way, which can lead to impairment in PWB levels [28]. When the sequelae are so serious that they cause some dependence, the PWB breaks down, increasing the risk of developing psychological distress [22].

Conclusion

Rehabilitation programs aimed at psychological intervention seem to be an asset for the quality of life of patients as well as for their PWB, in the same vein, integrating caregivers in these programs seems to be ideal to optimize both the quality of life and the well-being [29]). Many patients need several additional resources in addition to hospitalization in order to have quality of life and to feel psychologically well, according to a recent study, a large part of stroke patients had to be hospitalized in a hospital context because they had isolated psychopathological symptoms [30]), in view of this, it is important to reinforce, in the context of post-stroke, actions that promote PWB, these actions can be dynamized by the hospitals themselves or associations.

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