

## Stress Vulnerability and Quality of Life in Alcohol use Disorders (AUD)

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### Abstract

**Introduction:** The analysis of the impact of individuals' behaviors on their health involves several variables, namely alcoholism. It is necessary to take into account that when anxiety is excessive it may be very disabling and produce many adverse effects, such as unsatisfactory work performance, anxiety disorders, depressive mood and somatic symptoms. Alcohol consumption linked to this, because patients frequently drink to deal with unpleasant emotions, encouraging abuse. These elements affect the Quality of Life (QOL) drastically, while social support of the patients protect QOL.

**Methods:** An exploratory, descriptive and correlational study carried out. A sociodemographic scale was used, an instrument constructed by the authors that assesses the existence of risk behaviors and protective health behaviors, the Social Support Satisfaction Scale (ESSS), the Stress Vulnerability Scale (23QVS), of quality of life (WHOQOL-Bref). Data analysis performed using IBM SPSS 25 statistics.

**Results:** Sample consisting of 34 patients with Alcohol Use Disorders (AUD). Vulnerability to stress is identified in 97% of the sample. Abstinence time is positively correlated with QOL and negatively correlated with stress vulnerability and with social support satisfaction

**Conclusion:** This study shows that in treatment of patients with AUD, longer abstinence times have a positive effect on stress vulnerability, QOL and overall wellbeing of patients, while being associated with a lower satisfaction with social support. Treatment Units dedicated to AUD should keep striving for maintenance of abstinence due to these positive effects.

**Keywords:** Alcohol Use Disorders; Lifestyle; Quality of Life; Social Support; Stress

### Introduction

Anxiety is a natural physiological response of the organism to stressful events that allows individuals to have fight-or-flight reactions in order to quickly react when facing stressful situations. In addition, stressful events may function as a motivational drive to individuals and so represent an opportunity to change their life's promoting personal fulfilment and defining new future goals [1]. However, when anxiety is excessive it may be very disabling and produce many adverse effects, such as unsatisfactory work performance, anxiety disorders, depressive mood and somatic symptoms, which can affect quality of life [2].

Often, alcohol consumption linked to stressful situations, being used to deal with events of high emotional burden, since in

small doses it causes relaxation and a feeling of well-being. These effects are markedly pronounced in individuals with Alcohol Dependence Syndrome, in whom there is a greater vulnerability to stress [3], and it should be well noted that alcohol is a significant risk factor for health, being responsible for 7.4% of disability and premature death in the European Union [4].

Thus, it is crucial to reduce stress, as well as the psychosocial risks that arise from it, contributing to an increase in quality of life, promoting changes in lifestyle, namely in diet, preventive or risk behaviors, social relationships, physical activity and consumption of alcohol or other substances. Thus, the behavioral pattern of each individual has a high impact on health. In general, impairing or improving their quality of life.

According to World Health Organization, quality of life defined as the perception that an individual has about his position in life, in relation to the culture and value system in which he insert-

ed, as well as in the interaction between his goals, expectations, standards and concerns, including different areas of functioning, social, occupational, physical, psychological and somatic sensations. The literature has shown worse results in this area depending on the degree of dependence and associated comorbidities [5].

In order to promote health and quality of life, as well as to promote resistance to stress, social support is fundamental for this to happen, assuming a primary role both in terms of disease prevention and during the rehabilitation process, after the disease has set in. Individuals who do not have privileged social relationships considered more vulnerable to stress. Thus, social support plays an essential role in preventing stress, given that individuals who benefit from higher levels of social support behave more consciously, using more appropriate and less impulsive strategies [6], having a positive impact on mental health [7] and physical health [8].

## Materials and Methods

An exploratory and correlational descriptive study carried out, with the aim of analyzing vulnerability to stress, the existence of risk behaviors, QOL and social support in people with AUD. It also intended to assess the relationship between withdrawal time, QOL, vulnerability to stress and satisfaction with social support. The data collected in a treatment unit for people with AUD attending different treatment modalities (inpatient ward, outpatient day hospital, Therapeutic Groups and Consultations) in Lisbon, Portugal. The following inclusion criteria were considered: age equal to or above 18 years old, literacy, and no neurological or cognitive alterations that prevented questionnaire answering.

## Procedures

Local Ethics committee and board of director's authorization for the study was obtained. The study was explained to each participant individually and written informed consent obtained from each participant.

The data analyzed using the statistical program SPSS (Statistical Package for Social Sciences), version 25.0 and descriptive analysis performed to describe the sociodemographic variables, risk behaviors and health behaviors reported by the participants. A correlation was made (Pearson's correlation) between the variables QOL, satisfaction with social support and vulnerability to stress and between these and the participants' abstinence time. The results of the present study are considered statistically significant at a significance level of 5% or 1% [9] that is, for  $p < 0.05$  or  $p < 0.01$ .

## Instruments

### Sociodemographic questionnaire

Questionnaire built by the authors where risk behaviors and health behavior is evaluated;

Stress Vulnerability Questionnaire - 23QVS [10] composed of a likert-type scale, with five possibilities of choice (from 0 to 4). The higher the overall score, the higher the Stress Vulnerability (SV). A rating of 43 represents the cutoff point above which a person is vulnerable to stress. In the validation study for the Portuguese population, a Cronbach's alpha of the global scale of 0.82 was obtained [10] and, in the present study, of 0.86.

WHO QOL-Bre: This instrument assesses the Quality of Life (QOL). The abbreviated version, consisting of 26 items, 2 of which are more general, related to the general perception of QOL and the general perception of health, and the remaining 24 represent each of the 24 specific facets that constitute the original instrument [11]. These 24 items are divided into four domains: Physical, Psychological, Social Relations and the environment [11,12].

Scale of Satisfaction with Social Support - ESSS [13] - The Scale of Satisfaction with Social Support - ESSS is an instrument developed by Wethington and Kessler in 1986 and validated for the Portuguese population by Ribeiro [12]. It is a questionnaire of self-completion, which allows the operationalization of the variable satisfaction with social support, with its four dimensions or factors through 15 items of semantic differential of 5 points: "totally agree", "mostly agree", "neither agree nor disagree", "mostly disagree" and "totally disagree". The total score of the scale results from the sum of the totality of the items, and can vary between 15 and 75, with the highest score corresponding to a perception of greater social support.

## Results

### Demographic characteristics of the sample

The sample consists of 34 participants, 25 male (73.5%) and 9 female (26.5%), with a mean age of 48.26 (SD = 7.18). 41.2% of the participants are single, 32.4% are married and 23.5% are divorced. Of the total sample, 26.5% live alone and 38.2% are unemployed, with the most prevalent educational qualification being the 9th grade (52.9%).

### AUD

With regard to AUD, we found that 17.6% have been on treatment for about a month, 26.5% for 3 months, 32.4% for 6 months and 23.6% for 12 months or more. Participants are in different treatment modalities (Outpatient Day Hospital - 50%, Inpatient Ward - 11.8%, therapeutic groups - 23.5% and consultations - 13.8%).

Regarding the withdrawal time, it was found that 29.4% had been abstinent for one month, 32.4% for 3 months, 32.45 for 6 months and 5.9% for more than 12 months.

Half of the sample was undergoing treatment in Outpatient Day Hospital (intensive and daily alcohol psychosocial rehabilitation treatment), with 32.4% attending this modality for 6 months, with 38.3% abstaining during the same period.

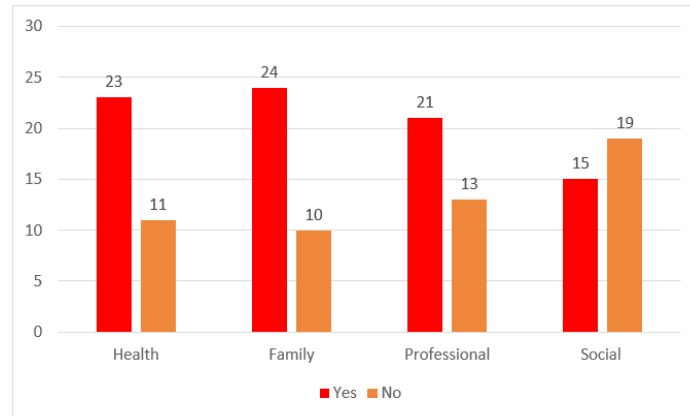


Figure 1: Consequences identified in different areas of life by the participants in relation to alcohol consumption.

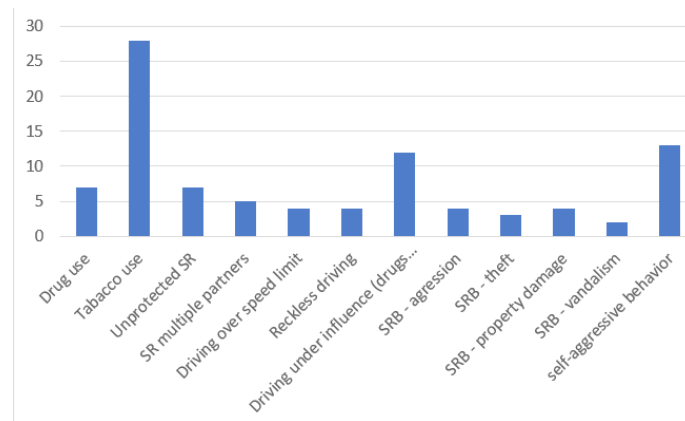


Figure 2: Prevalence of risk behaviors in the total sample; R.S - sexual intercourse; SRB- Socially Reprehensible Behavior.

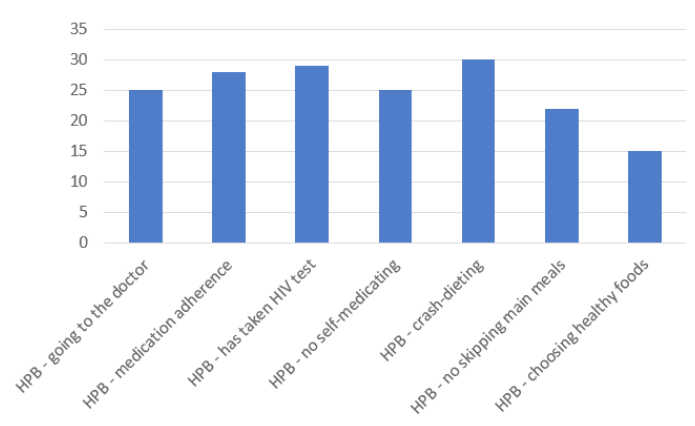


Figure 3: Protective health behaviors. HPB – health-promoting behavior.

Analysis of the data shows that the area of life which suffers a greater impact of AUD is the family area. The most frequent risk behaviors are tobacco use and self-aggressive behaviors.

|                             | Mean  | SD    |
|-----------------------------|-------|-------|
| Quality of life             | 90,91 | 18,19 |
| Stress vulnerability        | 71,69 | 14,17 |
| Social support satisfaction | 47,36 | 4,92  |

**Table 1:** Average values of QOL, Stress Vulnerability (SV) and Social Support Satisfaction (SSS) of the total sample.

Regarding SV, it was found that M = 71.69 and SD = 14.7 with a minimum of 31 and a maximum of 99.

When correlating SV, existing in 97% of the sample with protective health behaviors, it was found that there is a statistically significant negative correlation between SV and going to the doctor (a protective health behavior), that is, the greater the vulnerability to stress identified, the lower the active search for medical care (Pearson's correlation = -0.37 and p = 0.03).

|                             | Quality of life         | Stress vulnerability     | Social support satisfaction | Abstinence Time          |
|-----------------------------|-------------------------|--------------------------|-----------------------------|--------------------------|
| Quality of life             | 1                       | Pearson=-0,743** P=0,00  | Pearson=0,357* P=0,04       | Pearson=0,340* P=0,04    |
| Stress vulnerability        | Pearson=-0,743** P=0,00 | 1                        | Pearson= -0,059 P=0,74      | Pearson= - 0,357* P=0,04 |
| Social support satisfaction | Pearson=0,357* P=0,04   | Pearson= -0,059 P=0,74   | 1                           | Pearson= -0,029 P=0,87   |
| Abstinence Time             | Pearson=0,340* P=0,04   | Pearson= - 0,357* P=0,04 | Pearson= -0,029 P=0,87      | 1                        |

\* The correlation is significant at the level of 0.01.  
\*\* The correlation is significant at the 0.05 level

**Table 2:** Correlations between Quality of Life (QOL), Stress Vulnerability (SV), Satisfaction with Social Support (SSS), and Abstinence Time (AT).

A statistically significant correlation between QOL and SV was found (Pearson's correlation = -0.74 and p = 0.00). The correlation between SSS and QOL is also statistically significant (Pearson's correlation = -0.36 and p = 0.04). AT is correlated with QOL (Pearson's correlation = 0.340\*; p = 0.04), so as the withdrawal period increases, quality of life improves.

There was a negative correlation between TA to SV and SSS. As the time of withdrawal increases, vulnerability to stress and satisfaction with social support decreases. No statistically significant correlations were found between SSS and SV.

## Discussion

This study shows that patients with alcohol use disorders present high vulnerability to stress, which is congruent with the literature, and that abstinence time is positively correlated with quality of life [13].

Also relevant was that as the time of withdrawal increases, vulnerability to stress and satisfaction with social support decreases. These results indicate that patients with alcohol use disorders under intensive and daily alcohol psychosocial rehabilitation treatment who achieve longer abstinence times can improve their vulnerability to stress and become more critical about the social support they have. This second finding regarding dissatisfaction with

their social support is very interesting, suggesting two hypotheses: one is that dissatisfaction with social support is a contributing factor for the onset of AUD; the other hypothesis is that social support actors may provide an unsatisfactory level of support to the patients when AUD starts being under control by the patient. If this social support satisfaction variation is cause or consequence of AUD remains to be seen. This finding will undoubtedly be further studied by our group in the future.

In conclusion, this study shows that in treatment of patients with AUD, longer abstinence times have a positive effect on vulnerability to stress, QOL and overall wellbeing of patients, while being associated with a lower satisfaction with social support. Treatment Units dedicated to AUD should keep striving for maintenance of abstinence due to these positive effects.

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