Empirical Articles

# Life Satisfaction: Study of the Predictors in a Mixed Portuguese Sample

Satisfação com a Vida: Estudo dos seus preditores junto de uma população mista portuguesa

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## Abstract

**Aim:** Life satisfaction has been a central research topic in the field of Health Psychology, as an essential construct to individual adaptive psychological functioning. This paper aims to study the predictors of life satisfaction in a mixed sample, verifying the continuity of satisfaction with life in populations of patients with psychiatric disorders and healthy controls.

**Method:** It was used a mixed sample of non-clinical participants (n = 228) and clinical participants with psychiatric illness (n = 183) from Azores (Portugal). Correlation analyses and, subsequently, multiple linear regression analyses were carried out to study the predictors of satisfaction with life.

**Results:** Depression and the satisfaction of basic psychological needs were the best predictors of life satisfaction.

**Conclusion:** Psychological disorders constitute a vulnerability factor for dissatisfaction with life. Therefore, prevention or education and the promotion of adaptive coping strategies for adverse life situations is imperative for improving satisfaction with life, particularly in individuals affected with psychiatric illness.

*Keywords:* satisfaction with life, depression, satisfaction of basic psychological needs

## Resumo

**Objetivo:** O estudo da Satisfação com a Vida tem sido um tema central de pesquisa no campo da Psicologia da Saúde, sendo um construto essencial para o funcionamento psicológico dos indivíduos. Este estudo teve como objetivo estudar os preditores de satisfação com a vida numa amostra mista, verificando a continuidade da satisfação com a vida nessas populações.

**Método:** Foi utilizada uma amostra mista de participantes da população geral (n = 228) e de participantes com doença psiquiátrica (n = 183) dos Açores, Portugal. Foram levadas a cabo análises de correlação e, posteriormente, análises de regressão linear múltipla para estudar os preditores de satisfação com a vida na amostra em estudo.

**Resultados:** Com base nos resultados, a Depressão e a Satisfação das Necessidades Psicológicas Básicas foram as variáveis que melhor predizem a satisfação com a vida.

**Conclusões:** Os distúrbios psicológicos constituem um fator de vulnerabilidade à insatisfação com a vida e, portanto, a prevenção ou educação e a promoção de estratégias de *coping* adaptativas para a gestão das situações adversas da vida devem ser imperativas para uma melhor perceção da Satisfação com a Vida, principalmente junto dos indivíduos com doença psiquiátrica.

*Palavras-Chave:* satisfação com a vida, depressão, satisfação das necessidades básicas psicológicas

Recently, the study and understanding of subjective well-being has been a central research topic, particularly in the field of Health Psychology. One of the key components of subjective well-being concerns life satisfaction, linked essentially to the processes of cognitive judgment (Diener, Emmons, Larsen, & Griffin, 1985). Shin and Johnson (1978) defined satisfaction with life as "a global assessment of person's quality of life according to his chosen criteria" (p.478). In other words, Satisfaction with Life is the "cognitive-judgmental" component of subjective well-being (Diener et al., 1985, p. 71), positively related to the individual's psychological adjustment (Diener, Sapyta, & Suh, 1998) and negatively connected with some psychological disorders, such as depression (Pavot & Diener, 1993). Satisfaction with life, despite being stable over time, is sensitive to changes that occur in the life of the individual (Lucas, Diener, & Suh, 1996; Suh, Diener, & Fujita, 1996). In this sense, satisfaction with life has been studied in physical illness contexts (e.g., Lucas-Carrasco, Oudsten, Eser, & Power, 2014), and more recently in the scope of mental illness (e.g., Brissos et al., 2013; Karatzias et al., 2013; Meyer, Rumpf, Hapke, & John, 2004). It should be noted that under medical (e.g., mental) or other conditions, satisfaction with life judgments arise from the comparison, made by individuals, between their current life conditions and those that they perceive as optimal (Diener et al., 1985). This subjectivity inherent in satisfaction with life construct has led, on the one hand, to challenges regarding its assessment and to the identification of factors that seem to predict or be involved (or not) in its development, on the other.

Several studies identified the predictors of satisfaction with life in general population and in clinical samples, and evidence consistently showed that these factors are similar in both populations (Lucas-Carrasco et al., 2014). Factors commonly found across populations, such as social support (e.g., Lacruz, Emeny, Baumert, & Ladwig, 2011; Roh, Lee, Lee, Shibusawa, & Yoo, 2015; Song, Kong, & Jin, 2013; Stansfeld, Shipley, Head, Fuhrer, & Kivimaki, 2013; Strine et al., 2009) and socio-economic status (Eroğlu, Bozgeyikli, & Çalişir, 2009; Kapteyn, Smith, & van Soest, 2013; Marum, Clench-Aas, Nes, & Raanaas, 2014), have been crucial to the prediction of satisfaction with life.

Another important predictive variable of satisfaction with life in the general and clinical populations concerns the satisfaction of psychological basic needs (Molix & Nichols, 2013). The term satisfaction of basic psychological needs means the set of motivational impulses - competence, relationship and autonomy – whose satisfaction leads to well-being and fulfilment (Tay & Diener, 2011). According to Deci and Ryan (2000), attributes of self-efficiency and ability to command one's life requirements refer to the competence component. In turn, the relationship component relates to the individual's perception that he/she possesses a good social support network, to which care behaviours are also related. Finally, the autonomy component refers to the individual's perception of freedom in independent decision-making, as the person is not affected by external pressure. Satisfaction of basic psychological needs is positively associated with mental well-being, positive mood and good psychological adjustment (Wei, Shaffer, Young, & Zabalik, 2005). In contrast, the satisfaction of basic psychological needs presents a negative correlation with disorders such as anxiety and depression (Wei et al., 2005). Interestingly, shame is another variable that has emerged as being more related to the perception of dissatisfaction of basic psychological needs, possibly due to the fact that, in the presence of an illness, which can be shrouded in stigma, the demand for health care could be compromised (Marum et al., 2014; Kapteyn et al., 2013; Wei et al., 2005). It should be further noted that adverse childhood experiences, such as physical abuse or unsafe environments (e.g., Balsa, Homer, & French, 2009; Layard, Clark, Cornaqlia, Powdthavee, & Vernoit, 2014) may also predict the perception of satisfaction with life in adulthood in general and clinical populations. However, research on the impact of family history or traumatic experiences in childhood (e.g., shame, submission) or in the area of satisfaction with life is still scarce, especially regarding the general population (Rissanen, 2015).

It is important to note that, in clinical populations, satisfaction with life is less salient in comparison to the general population (Lucas-Carrasco et al., 2014). Studies have suggested that the presence of illness, particularly mental illness (e.g., depression, bipolar disorder), is a factor that extensively affects the individual's perception of satisfaction with life (e.g., Rissanen, 2015). In the presence of a medical condition, the chronicity is an important aspect of the person's satisfaction with life. According to Lucas-Carrasco and colleagues (2014), satisfaction with life decreases as the number of years with chronic disease increase. Chronic illness, such as some severe mental disorders (e.g., schizophrenia), impacts negatively on several aspects of the individual's life and leads to less favourable evaluations of one's current life situation (Meyer et al., 2004). In addition to the chronicity, comorbidity is another factor that negatively affects satisfaction with life (e.g., Fervaha, Agid, Takeuchi, Foussias, & Remington, 2014; Kurtz, Bronfeld, & Rose, 2012; Ritsner, Lisker, & Arbitman, 2012). There is evidence of correlations between lower perceptions of satisfaction with life and mental illness (e.g., schizophrenia, bipolar disorder), leading to a deterioration of general subjective well-being (Lambert et al., 2009; Ritsner, Gibel, & Ratner, 2006; Ritsner, Gibel, & Ratner, 2006). The reverse situation is also true: a positive assessment of satisfaction with life is less associated with psychiatric symptoms, lower comorbidity (Barnes, Murphy, Fowler, & Rempfer, 2012) and, in the opposite direction, with increased mental health (Seow et al., 2016). This satisfactory evaluation of life can also be because the individual is in possession of adaptive strategies for coping with the disease, reducing its negative impact on several aspects of life (Meyer et al., 2004). Nevertheless, it should be noted that some specificities may arise; for example, in the case of bipolar disease, the assessment of satisfaction with life may be skewed by the episodes of mania which might mitigate the adverse effects of the disease on the individual's life and corresponding satisfaction (Meyer et al., 2004).

Despite this significant body of evidence, to our knowledge, few studies have been carried out in Portugal about the predictors of satisfaction with life in both general and clinical populations, in spite of the continuity that appears to occur between them. Existing studies, focused on the predictors of satisfaction with life, have considered non clinical and clinical populations separately, (e.g., Gomes & Quintão, 2011; Marques, Silva, & do Céu Taveira, 2017; Neves, Martins, Magalhães, Fernandes, & Mendes, 2016), instead of diverse samples. Therefore, the main purpose of this study is to analyse the predictors of satisfaction with life in a mixed Portuguese sample (including participants from non-clinical and clinical populations).

# Method

## Participants

This study comprises a sample of adult participants (aged 18 or older), of both genders, drawn from both the general population ($n$ = 228) and outpatients with psychiatric disorders ($n$ = 183) living in São Miguel Island, Azores (Portugal).

The total sample comprised 411 participants, being 66 men and 162 women from general population, and 50 men and 133 women from clinical population. The majority of individuals in both subsamples were married or in civil union and their age ranged from 34 to 39 years. Regarding education, individuals from general population were, for the most part, high school graduates, while those belonging to clinical population had less years of education – mainly at the elementary and middle school levels. In terms of socioeconomic status (SES), non-clinical participants were primarily middle class, and those from the clinical population predominately low SES.

Participants from both subsamples only differed significantly regarding these two sociodemographic variables. The samples' characteristics are detailed in Table 1.

Table 1

*Samples' Characteristics*

| Variable | Total Sample[a] | | Non-Clinical Sample[b] | | Clinical Sample[c] | | $\chi^2$ | *p* |
|---|---|---|---|---|---|---|---|---|
| | *N* | % | *n* | % | *n* | % | | |
| Gender | | | | | | | 0.13 | .74 |
|    Male | 116 | 28.2 | 66 | 28.9 | 50 | 27.3 | | |
|    Female | 295 | 71.8 | 162 | 71.1 | 133 | 72.7 | | |
| Marital status | | | | | | | 5.52 | .06 |
|    Single | 120 | 29.2 | 70 | 30.7 | 50 | 27.3 | | |
|    Married/Civil union | 239 | 58.2 | 137 | 60.1 | 102 | 55.7 | | |
|    Divorced/Widower | 52 | 12.7 | 21 | 9.2 | 31 | 16.9 | | |
| Socioeconomic status | | | | | | | 66.65 | < .001 |
|    Low | 245 | 59.6 | 96 | 42.1 | 149 | 81.9 | | |
|    Medium | 136 | 33.1 | 108 | 47.4 | 28 | 15.4 | | |
|    High | 29 | 7.1 | 24 | 10.5 | 5 | 2.7 | | |
| Education | | | | | | | 46.43 | < .001 |
|    Did not attend to school | 12 | 2.9 | 2 | 0.9 | 10 | 5.5 | | |
|    Elementary school | 201 | 48.9 | 86 | 37.7 | 115 | 62.9 | | |
|    High school | 116 | 28.2 | 80 | 35.1 | 36 | 19.7 | | |
|    College | 82 | 20.0 | 60 | 26.3 | 22 | 12.0 | | |

*Note.* *M* (*SD*) in years for the non-clinical and clinical sample: 42.0 (13.95), 44.3 (13.51), respectively; *F*(#,#) = 0.09, *p* = .75.
[a]*N* = 411. [b]*n* = 228. [c]*n* = 183.

## Measures

### Satisfaction With Life Scale (SWLS)

Developed by Diener, Emmons, Larsen and Griffin (1985; Portuguese validation by Simões, 1992), the Satisfaction With Life Scale is a tool of rapid administration, consisting of only 5 items rated in a Likert-type scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Higher scores in this range are indicative of high levels of satisfaction with life. Both the original and the Portuguese version of the scale reveal good internal consistency (Cronbach's alpha was .87 and .78, respectively). In the current sample, internal consistency was .89.

### Other as Shamer Scale (OAS)

This scale, developed by Goss, Gilbert, and Allan (1994; Portuguese version by Matos, Pinto-Gouveia, & Duarte, 2011), is a self-report scale assessing external shame. It shows the extent to which one perceives the self to be regarded as inferior, flawed or unattractive by others. The OAS comprises 18 items rated in a Likert-type response scale ranging from 0 (*Never*) to 4 (*Almost always*) (Goss et al., 1994). Higher scores indicate higher levels of external shame. Both the original and the Portuguese version of the scale yield high internal consistency coefficients (Cronbach's alpha was .92 and .91, respectively). In the current sample, internal consistency was .96.

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**Submissive Behaviour Scale (SBS)**

Developed by Allan & Gilbert (1997; Portuguese version by Castilho & Pinto Gouveia, 2013). This scale consists of 16 items assessing the frequency of submissive behaviours. Each behaviour is rated according to a Likert-type frequency scale ranging from 0 (*Never)* to 4 (*Always*) (Allan & Gilbert, 1997). Higher scores indicate increased frequencies of submissive behaviours (Allan & Gilbert, 1997). Both the original and the Portuguese versions of the scale reveal good internal consistency coefficients (Cronbach's alpha was.89 and .90, respectively) (Allan & Gilbert, 1997; Castilho & Pinto-Gouveia, 2013). In the current sample, internal consistency was .83.

**Beck Depression Inventory-II (BDI-II)**

This measure was developed by Beck, Steer and Brown (1996; Portuguese version by Gomes-Oliveira et al., 2012). The BDI-II is a widely used measure to assess depressive symptomatology. It comprises 21 sets of statements referring to depressive symptoms, ordered by degree of severity (non-existent, mild, moderate, and severe) (Beck et al., 1996). Both the original and the Portuguese version of the scale reveal high internal consistency (Cronbach's alpha was .91 and .92, respectively) (Beck, Steer, & Brown, 1996; Gomes-Oliveira et al., 2012). In the current sample, internal consistency was .94.

**Basic Need Satisfaction General Scale (BNSG-S)**

This scale was developed by Johnston and Finney (2010; Portuguese version by Sousa, Ribeiro, Palmeira, Teixeira, & Silva, 2012) This self-report instrument comprises 21 items that assess basic needs satisfaction by means of a General Scale based on the self-determination theory. This instrument comprises three subscales corresponding to three basic needs: competence, autonomy, and relatedness. Items are evaluated on a scale ranging from 1 (*Not at all true*) to 7 (*Very true*). Nine of the 21 items are negatively formulated, requiring scores to be reversed prior to analysis. Both the original and the Portuguese version of the scale yielded good internal consistency coefficients (Cronbach's alpha was .89 and .86, respectively) (Johnston & Finney, 2010; Sousa et al., 2012). In the current sample, internal consistency was .88.

**The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)**

This measure was developed by Tennant et al. in 2007). The Warwick-Edinburgh Mental Health Scale is designed to measure mental health (mental well-being) and consists of 14 items with five response categories on a Likert-type scale ranging from 1 (*None of the time*) to 5 (*All of time*). This set of items cover most aspects of mental health indicators (positive thoughts and feelings) prevailing in the literature, including both hedonic and pursuit of happiness prospects. The higher the score, the better the respondent's mental health level. The scale revealed good internal consistency coefficients (with a Cronbach's alpha of .91) (Tennant et al., 2007). In the current sample, internal consistency was .94.

## Procedures

Convenience and snowball sampling methods were used to recruit participants from general population; participants with psychiatric problems were contacted through the regional health care services. Informed consent was obtained from all participants in this study. Consent for this study was also obtained, beforehand, from the Ethical Review Board of the Ponta Delgada General Hospital (Divino Espírito Santo Hospital). All procedures performed in studies involving human participants were in accordance with the ethical standards of the institu-

Table 2

*Correlation coefficients between SWLS, OAS, SBS, BDI, BPNS, WEMWBS and Socioeconomic Status (n = 411)*

| Scale | OAS | SBS | BDI | BPNS | WEMWBS | SES |
|-------|-----|-----|-----|------|--------|-----|
| SWLS | -.492* | -.267* | -.644* | .564* | .608* | .325** |

**p < .01.

tional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Research goals and instructions for filling each self-report questionnaire were given to each participant after obtaining their informed consent, individually. One of the researchers (a psychologist) would read them aloud to the participants, and any questions about procedures were explained when necessary. Each participant answered the self-reports autonomously. Participants with mental illness who had difficulties in filling out the self-reports, as well as the consent form provided with the research protocol, were individually assisted by one of the researchers (all psychologists), who would start by explaining the goals of the study and the conditions of privacy and confidentiality inherent in their voluntary participation.

It should be noted, however, that some participants were not able to personally participate in this procedure. In this case, materials were sent to them by mail and contacts made by phone, in order to ensure that instructions were properly understood. Each participant freely agreed to complete the self-report measures according to the protocol, and to return them, either in person, or by mail. Provisions were made to contact those participants who, for some reason, did not return their materials on time. In this case, they were reminded of the time-limit agreed upon and the opportunity was taken to explain subsequent task inherent difficulties.

## Statistical Analysis

Statistical analyses consisted of descriptive statistics and linear regressions, carried out with SPSS version 20.0 (IBM Corp., 2011). In all analyses, alpha levels of reference for statistical significance were .05. Pearson's correlation coefficients were calculated in order to explore the relationships between satisfaction with life, external shame, submission, depression, satisfaction of basic psychological needs and mental well-being. Linear regression analysis was used to address the extent to which these variables (with the exception of satisfaction with life) had a significant impact in satisfaction with life of the population studied. Assumptions of univariate normality were verified, and all variables presented acceptable values of skewness and kurtosis (Maroco, 2010). Finally, a moderation model was calculated in order to assess the effect of the interaction between satisfaction of basic psychological needs, depression and satisfaction with life.

# Results

As expected, correlation analyses conducted between the variables in study showed high and moderate correlation coefficients (see Table 2).

Satisfaction with life showed a statistically significant positive correlation with mental well-being ($r$ = .608; $p$ < .001), with the satisfaction of basic psychological needs ($r$ = .564; $p$ = < .001) and with the socioeconomic

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status ($r$ = .325; $p$ < .001). As expected, negative and statistically significant correlations were found between satisfaction with life and depression ($r$ = -.644; $p$ < .001) and between depression and external shame ($r$ = -.492; $p$ < .001). A negative and statistically significant correlation between satisfaction with life and submission we also observed ($r$ = -.267; $p$ < .001).

## Regression Analysis

Taking into account the results of the correlations analyses, a linear regression model was carried out with step-wise method, defining the variables depression, external shame, submission, mental well-being, satisfaction of basic psychological needs and socioeconomic status as predictors of the dependent variable satisfaction with life. Through standardised regression coefficients it is possible to conclude that depression has emerged as the most salient predictor of satisfaction with life, β = -.299; $t(409)$ = -5.463, $p$ < .001, followed by the satisfaction of basic psychological needs, β = .217; $t(409)$ = 4.329, $p$ < .001, socioeconomic status, β = .156; $t(409)$ = -4.362, $p$ < .001, mental well-being, β = .208; $t(409)$ = 3.907, $p$ < .001, submission, β = .116; $t(409)$ = 2.779, $p$ < .001 and external shame, β = -.122; $t(409)$ = -2.609, $p$ < .001. The linear regression model calculated for the complete sample total (including participants from the general and clinical populations) explains 52% of the variance in satisfaction with life, $F(6, 409)$ = 73.225; $p$ < .001; $R^2$ = .522. Results of linear regression are presented in Table 3.

Table 3

*Standardised Estimates, Path Coefficients and Significance Level of the Model*

| | Unstandardised Coefficients | | Standardised Coefficients | | |
| --- | --- | --- | --- | --- | --- |
| Model | B | SE | Beta | t | p |
| (Constant) | 6.171 | 2.590 | | 2.383 | .018 |
| BDI | -0.119 | 0.022 | -.299 | -5.463 | < .001 |
| BPNS | 0.066 | 0.015 | .217 | 4.329 | < .001 |
| SES | 1.409 | 0.323 | .156 | 4.362 | < .001 |
| WEMWBS | 0.110 | 0.028 | .208 | 3.907 | < .001 |
| SBS | 0.069 | 0.025 | .116 | 2.779 | .006 |
| OAS | -0.049 | 0.019 | -.122 | -2.609 | .009 |

Based on the results above, and considering that depression and satisfaction of basic psychological needs were the two most significant predictors of satisfaction with life, a moderation analysis was performed in order to assess the effect of the interaction between those two variables in satisfaction with life. Through linear regression, we tested the effect of the interaction between satisfaction of basic psychological needs and depression in predicting satisfaction with life. This effect, however, was not statistically significant, β = -.030; $t(409)$ = -.718, $p$ = .473.

## Comparison Between Groups

In order to verify statistically significant differences between subsamples (clinical and non-clinical groups), a *T* test was calculated for life satisfaction. As expected, participants from the non-clinical sample presented higher scores in life satisfaction ($M$ = 18.19; $SD$ = 4.61) in comparison to the clinical group ($M$ = 13.19; $SD$ = 5.56).

This difference was not only statistically significant, $t(409) = -9.979$, $p < .001$, but also presented a large effect size (Cohen's d = .97).

# Discussion

Satisfaction with life is positively related to good psychological adjustment in the individual and negatively associated with psychological disorders, such as anxiety, depression, schizophrenia and bipolar disorder (Karatzias et al., 2013; Meyer et al., 2004;) and with variables such as satisfaction of basic psychological needs (Molix & Nichols, 2013; Wei et al., 2005). The objective that guided this research was to study the predictors of satisfaction with life in a mixed sample of participants: drawn from the general population and clinical population. Analyses indicate the existence of a continuum of (dis)satisfaction with life between general and clinical populations, which is yet understudied in Portugal. Hence, the innovative nature of this study is asserted. Statistically significant? differences were found between the two studied populations (with and without psychiatric illness) regarding the dependent variable studied-life satisfaction. Similarly to previous research, (where two distinct populations are considered), the clinical sample showed the lowest levels of life satisfaction, when compared to the non-clinical. These findings are consistent with those of Kurtz, Bronfeld and Rose (2012), Lambert et al. (2009), Meyer et al. (2004) and Ritsner, Lisker, and Arbitman (2012). In this research, depression emerged as the most significant predictor of satisfaction with life. In fact, psychological disorders or the presence of negative psychological symptoms, such as depressed moods, seem to be a vulnerability factor to dissatisfaction with life, as evidenced in other studies (e.g., Gomes & Quintão, 2011; Meyer et al., 2004; Rissanen, 2015;). Another significant predictor of satisfaction with life was the satisfaction of basic psychological needs. Its predictive effect on subjective well-being was not clearly shown (on either the clinical or non-clinical samples), and neither was its effect on satisfaction with life, in particular. Literature has evidenced that individuals from both populations value the satisfaction of basic psychological needs and perceive that such satisfaction is difficult to attain, for example, by the conceded access to health care, which might lead to a greater dissatisfaction with life and is consistent with results by Marum and colleagues (2014) and by Kapteyn and co-authors (2013). Furthermore, in these cases, the shame associated with seeking health care can keep the symptoms active for longer periods of time, raising the chronicity of the illness and leading to increased dissatisfaction with life. Not only are these results in line with those of other studies carried out with clinical samples, but there is also evidence that socioeconomic status is one of the variables most associated with the presence of psychological disorders (Kapteyn et al., 2013; Marum et al., 2014; Van Damme, Colins, De Maeyer, Vermeiren, & Vanderplasschen, 2015). With the onset of the illness, some aspects of life (such as employment) can be compromised to the extent of raising significant economic problems, as recognised by Marum and colleagues (2014) and Kapteyn and co-authors (2013). Some studies also raise the possibility of people from lower socioeconomic status having a greater vulnerability to mental illness and, as such, their perception of subjective well-being and, in particular, of satisfaction with life, being quite inferior (Kapteyn et al., 2013; Marum et al., 2014; Tabler & Utz, 2015). Additionally, economic difficulties may also hinder the access to specialised health care, thereby reducing the satisfaction of basic psychological needs, which is an important factor in accomplishing satisfaction with life (Kapteyn et al., 2013; Marum et al., 2014; Viegas, Carmo, & Luz, 2015.). Our results are also in line with these findings, since they show socioeconomic status emerging as a predictor of satisfaction with life. Notwithstanding the possible effect of some adverse childhood experiences in the perception of satisfaction with life in adulthood, the fact is that, in this study, shame and submission revealed little predictive effect regarding satisfaction with life. Having

a mixed sample may also have contributed to scrawny effects of shame and submission on satisfaction with life. As advocated by Rissanen (2015), studies on the effect of traumatic childhood experiences in satisfaction with life are still scarce and, thus, more research is required in order to better understand such effects and relationships. In our study, the effect of the interaction between the satisfaction of basic psychological needs and depression and satisfaction with life was not statistically significant. This suggests that the interaction of satisfaction of basic psychological needs with depression is not a mandatory condition for achieving satisfaction with life. Therefore, each of the former variables, considered independently/separately, has an independent effect in determining satisfaction with life. In other words, depression itself can determine greater dissatisfaction with life and the fact that the individual hasn't fulfilled his basic psychological needs is not a requirement or necessary condition to meet dissatisfaction. In addition, psychological disorders (such as depression and failure to satisfy basic psychological needs) are vulnerability factors leading to dissatisfaction with life which deserve greater attention in future studies involving both non-clinical and clinical populations. As assessed in samples belonging to diverse populations, satisfaction with life seems to evolve in a continuum. In other words, perception of satisfaction with life differs only quantitatively but not qualitatively in the two populations studied. Results from this research have some implications for the study of coping strategies and other protective factors (e.g., social support) in dealing with life challenges. Hence, future research should take into account the role of these factors in the prevention of mental illness in the general population, and in remedial and palliative measures to deal with mental illness in clinical populations. This study is not without its limitations. The fact that we did not find statistically significant differences regarding gender may have restricted our conclusions from this research. However, one of the main gains of this study results from the fact that it contemplates two distinct populations, making available more data and results for intervention in this area in Portugal. Studies on this issue are still scarce despite their importance as a mean of ensuring the effectiveness and quality of psychosocial interventions.

Following this line of thought, we conclude that the main focus in this area should be in prevention through the promotion of mental health. As argued by the Portuguese Plano Nacional de Saúde Mental 2007-20016 (Ministério da Saúde, 2008, p. 9), the intervention in mental health requires a focus on some specific aspects, that deserve a special reference: The lack of participation of the patients and their families; the lack of scientific research in the psychiatric and mental health sector; the lack of response to the needs of vulnerable groups; the almost total lack of prevention and promotion programs, as already happens in other heath fields concerning, for instance, diabetes, obesity and coronary diseases.

Psychological disorders appear to play a major and vulnerable role in one's dissatisfaction with life. As such, results obtained from this study deserve attention, especially because predictability, in both populations, appears to work on a continuum and, accordingly, future interventions for the prevention of mental illness and/or remediation and palliative procedures are bound to benefit from these findings. Focus on the education of coping strategies and emphasis on other adaptive factors (e.g., social support) inherent in enhancing life's requirements, can be a promising line of intervention and research in this field.

## Funding

## Competing Interests

The authors have declared that no competing interests exist.

## Acknowledgments

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