THE IMPORTANCE OF POSITIVE FACTORS IN PROTECTING ADVERSE MENTAL HEALTH OUTCOMES AND SUICIDAL BEHAVIOR AMONG CITIZENS OF THE COMMUNITY OF PORTUGUESE LANGUAGE COUNTRIES

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Abstract: Research on positive factors underlies strategies for promoting mental health and preventing suicidal behaviors. Objectives: To assess the importance of social support, self-esteem, and resilience in protecting against adverse mental health outcomes and suicidal behavior in different Portuguese Language Countries. Method and Results: We collected an online sample of 1006 citizens from the Community of Portuguese Language Countries (CPLC), mean age of 41.76 years. Instruments assessed psychological symptoms, suicidal behaviors, social support, self-esteem, and resilience. We found statistically significant differences between CPLC countries, and positive factors were found to be inversely correlated with adverse mental health and suicidal behavior. Conclusions: Positive factors protect mental health and prevent suicidal behaviors. Self-esteem was particularly important, likely due to its intrinsic nature which has an overall influence on other psychological assets. Cultural differences should be taken in account when planning preventive and protective programs that should be specific to cultural needs.

Keywords: mental health; suicidal behavior; social support; self-esteem; resilience

1. Introduction

Mental health problems are a major risk factor for suicide (Botega, 2014), and although suicide rates have been decreasing globally, this is not the case for all countries (World

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Health Organization [WHO], 2021b). Suicide is a serious public health problem as it is among the leading causes of death worldwide (WHO, n.d., 2021a). Improving mental health and reducing mortality from suicide is, therefore, a priority for the WHO, which seeks to identify and promote socioemotional skills and positive and protective factors for mental health (WHO, 2021a, 2021b).

Several studies have explored the protective factors of mental health, particularly social support, self-esteem, and resilience, in various populations (Batista & Pereira, 2020; Kurtović et al., 2018; Liu et al., 2021; Martínez-Martí & Ruch, 2017; Matel-Anderson et al., 2018; Pereira & Silva, 2021; Watson et al., 2019; Williams, 2018; Yıldırım & Tanrıverdi, 2021). An understanding of this phenomenon is critically important to mental health outcomes as it underlies prevention strategies and social and clinical interventions (Arango et al., 2018).

From the perspective of Positive Psychology, social support and self-esteem are good predictors of resilience (Martínez-Martí & Ruch, 2017) and this mental capacity to adaptively overcome adverse circumstances contributes to better mental health and decreases the risk of suicidal behavior (Almeida, 2016; Matel-Anderson et al., 2018; Sher, 2019; Venicio & Daiuto, 2017). Social support refers to the emotional, instrumental, or informational help derived from a network of people such as family, friends, and significant others (Alsubaie et al., 2019; Gariépy et al., 2016), while self-esteem can be described as a favorable or unfavorable attitude towards oneself at a given time (Arsandaux et al., 2021; Soto-Sanz et al., 2019). Resilience concerns the active psychological process of mobilizing personal resources and coping mechanisms when faced with distress in challenging circumstances, resulting in successful adaptive outcomes (Botha & van den Berg, 2016; Karaman & Efilti, 2019). For this reason, resources such as social support and self-esteem may, therefore, be good predictors of resilience considering that, when mobilized, they contribute to adaptive outcomes under challenging circumstances.

There are many studies that report an inverse correlation between social support and the presence of depressive and anxious symptoms (Alsubaie et al., 2019; Gariépy et al., 2016; Wang et al., 2018). Social support has also been found to act as a protective factor as it mitigates the risk of suicide in adults (Stickley & Koyanagi, 2016). A review by Gariépy et al. (2016) revealed that people's main source of social support tends to differ by age, as adults and older adults tend to rely more on the support of significant others, followed by support from family and friends, while younger people tend to rely more on parental support. Nevertheless, social support has been consistently portrayed as a protective factor for depression across all ages (Alsubaie et al., 2019; Gariépy et al., 2016; Martínez-Hernáez et al., 2016), and it is extremely relevant to more vulnerable groups such as older people or sexual minorities (Batista & Pereira, 2020; Pereira & Silva, 2021; Watson et al., 2019).

Higher levels of self-esteem have also shown to be a protective factor for mental health (Karaca et al., 2019). A strong sense of self-esteem is essential in reducing psychopathological problems, since this builds a strong sense of competence and self-efficacy to deal with adversity and stressful events (Acácio, 2021; Bovier et al., 2004; Lee, 2020). Poor self-esteem can be one of the consequences of depression, which

enhances negative beliefs that distort the perception of the world, others, and oneself, or it can be one of the factors that trigger psychopathology (Acácio, 2021; Manna et al., 2016). Overall, women tend to have more psychological symptomatology and lower self-esteem than men (Acácio, 2021), and girls tend to exhibit higher levels of depression and suicidal behavior than boys (Barrera et al., 2020; Manna et al., 2016). Low self-esteem is one of the biggest predictors of suicidal behavior in young people (Barrera et al., 2020; Soto-Sanz et al., 2019), whose unfavorable attitude towards oneself can contribute to emotional and behavioral problems and poor peer relationships, which may in turn contribute to suicidal tendencies (Barrera et al., 2020). This may be explained due to the high-risk profile that young people represent, as poor socioemotional adjustment increases vulnerability to mental disorders (Fonseca-Pedrero et al., 2020).

Resilience is a protective factor for mental health even when individuals are exposed to adverse experiences (Färber & Rosendahl, 2018; M. Liu et al., 2020). More recently, resilience has gained prominence in research, specifically in the field of suicide prevention (Sher, 2019), and there are several studies that show that promoting resilience allows for the development of greater flexibility in dealing with psychological distress and reducing the impact of psychopathological symptoms (Rossetti et al., 2017; Venicio & Daiuto, 2017).

2. Positive factors in CPLC

In Portugal, social support is one of the most frequently mentioned positive factors in literature. In general, the greater the satisfaction with perceived social support, the lower the presence of depressive and anxious symptoms and, consequently, the lower the risk of suicide (Cortesão, 2020; Faria et al., 2019; Morgado, 2018). Furthermore, the presence of social support also influences the levels of resilience, which in turn is inversely correlated with the presence of psychopathological symptoms in the Portuguese population (Almeida, 2016), and corresponds with findings from international literature.

Studies from Brazil also present conclusions that agree with existing investigations. Positive factors have been found to protect against adverse mental health and suicidal behavior and to be determinants of positive outcomes when interacting with risk factors, constituting resources for a successful adaptation to difficulties (Pereira et al., 2018). Additionally, results have found that social support and the establishment of relationships with peers contributes to decreasing the development of psychopathology, a better adjustment to challenging contexts and a positive self-perception (de Souza, 2017; Oliveira & Barroso, 2020), self-esteem represents a protective factor for suicidal behavior (Pereira et al., 2018; da Silva, 2019), and resilience allows flexibility in adaptive problem solving, which is important in the field of suicide prevention (Venicio & Daiuto, 2017).

As for African Countries with Portuguese as an Official Language (PALOP), there is a scarcity of studies on the influence of these positive factors on mental health and suicidal behavior. Among existing literature, a review from Pires et al. (2019) concluded that the Mozambiquan population shows a high burden of mental illness due to the lack of conventional health services and cultural adaptation of therapies.

The CPLC has a population of close to 250 million and occupies an area of about 10.7 million square kilometers across four continents. Most of these countries are rich in cultural diversity and, at the same time, have a human development index below the global average. Although the CPLC shares the influence of Portuguese culture, countries within the CPLC have differing socioeconomic development patterns, which may influence the effect of positive factors on mental health and suicidal behaviors.

Taking into account the existing literature and the lack of studies on the protective factors of mental health and suicidal behavior in the CPLC, we developed the present investigation, which aims (1) to assess the importance of social support, self-esteem, and resilience in protecting mental health and suicidal behavior, (2) to determine differences in the relationship between protective factors and mental health and suicidal behavior by country of residence, (3) to assess levels of association between variables, and (4) to determine the effect of sociodemographic variables, country of residence, social support, self-esteem, and resilience in predicting mental health and suicidal behavior.

3. Materials and Methods

Participants

This study included 1006 participants who were citizens of the CPLC and between 18 and 80 years of age (mean = 41.76; SD = 14.19). Of these participants, 576 identified as female, 424 as male, and 6 as another gender. In terms of country of residence, 40.7% of the participants lived in Brazil, 29.9% lived in PALOP, and 29.4% lived in Portugal. Regarding sexual orientation, 87.5% of the participants self-identified as heterosexual, 6.5% as bisexual, and 6% as gay/lesbian. Racially, 49.9% of participants were white/European, 25.1% were African/Black, and 24.9% were mixed race. This sample was largely professionally active, as 60.4% were employed and 14.2% were students; in contrast, 4.7% were unemployed and 5.2% were retired. The majority of participants had obtained at least a bachelor's degree (90.1%) and were of average socioeconomic status (58%). In terms of marital status, 37% of participants were married to a person of the opposite sex, 21.9% were single and were not dating, and 16.8% were single and dating. More detailed information on these variables can be found in Table 1.

Table 1. Sociodemographic characteristics of the CPLC participants
(n=1006; Mage=41.76; SD=14.185)

Country of residence		n	%
	Portugal	296	29.4
	Brazil	409	40.7
	PALOP	301	29.9
Gender	Male	424	42.1
	Female	576	57.3
	Other	6	0.61
Sexual orientation	Heterosexual	880	87.5
	Bisexual	66	6.5
	Gay/Lesbian	60	6

Country of residence		n	%
Race/ethnicity	White/European	502	49.9
	African/Black	253	25.1
	Mixed	251	24.9
Professional status	Employed	608	60.4
	Unemployed	47	4.7
	Student	143	14.2
	Student-worker	82	8.1
	Self-employed	65	6.4
	Retired	52	5.2
	Medical leave	3	0.3
	Volunteer/community work	6	0.6
Educational attainment	≤ High school	100	9.9
	Bachelor's degree	249	24.7
	Master's degree	339	33.7
	Doctorate/Ph.D.	318	31.6
Socioeconomic status	Low	35	3.5
	Low-middle	109	10.8
	Middle	584	58
	Middle-high	227	22.5
	High	51	5.1
Marital Status	Single w/o dating	221	21.9
	Single w/dating	169	16.8
	Married w/same sex	14	1.4
	Married w/different sex	372	37
	De facto union w/same sex	12	1.2
	De facto union w/different sex	134	13.3
	Separated/divorced w/same sex	11	1.1
	Separated/divorced w/different sex	60	5.9
	Widower of different sex	13	1.3

Source: own representation

Measurement instruments

This study utilized six separate questionnaires to capture sociodemographic variables, psychological symptoms, suicidal behavior, social support, self-esteem, and resilience. The sociodemographic questionnaire asked about the participants' age, country of residence, gender, sexual orientation, race/ethnicity, professional status, educational attainment, socioeconomic status, and marital status.

To identify the presence of psychological symptoms (depression, anxiety, and/or somatization), and thus measure participants' mental health, we utilized the Brief Symptom Inventory-18 (BSI-18). This instrument includes 18 items to assess psychological symptoms experienced over the previous week and includes three different scales for depression, anxiety, and somatization. Additionally, the global severity index measures general psychological distress levels and is obtained by adding all 18 items together, with higher scores indicating worse mental health (Nazaré et al., 2017). This Portuguese-language version has adequate internal reliability, with very

good Cronbach's alpha values for the community group sample for all three scales and for the global severity index. Reliability analysis for this study was α=.926.

To assess suicidal behavior, we included the Suicidal Behaviors Questionnaire–Revised (SBQ-R), which has four items and utilizes a four-point Likert scale to measure suicidal ideation, intention, and attempt (e.g., the item 'Have you ever tried killing yourself?' assesses suicide attempt; the item 'How likely is that you will attempt suicide someday?' assesses future suicide risk). The Portuguese-language version used in this study is a straightforward translation of the items a psychometric appropriateness with a standardized coefficient alpha of .69 (Campos & Holden, 2019).

To measure social support, the Portuguese-language version of the Multidimensional Scale of Perceived Social Support (MSPSS) was utilized (Carvalho et al., 2011). This instrument measures social support from family, friends, and significant others through a seven-point Likert scale, with options ranging from 'Totally disagree (0)' to 'Totally agree (7)' (e.g., 'There is a special person that is close when I'm in need'; 'My family truly tries to help me'; 'I can talk about my problems with my friends'). The MSPSS has appropriate psychometric properties, with a Cronbach's alpha ranging between .87 and .95 for the three dimensions of social support. Reliability analysis for this study was α=.928.

To measure self-esteem, we utilized the Portuguese-language version of the Rosenberg Self-Esteem Scale (RSES), which has ten items scored on a three-point Likert scale with responses ranging from Strongly disagree (0) to Strongly agree (3) (e.g., 'I feel I have a number of good qualities'; 'I take a positive attitude toward myself') (Pechorro et al., 2011). The Cronbach's alpha for the total sample was good (.79), indicating good psychometric properties. Reliability analysis for this study was α=.866.

To measure resilience, we utilized the Portuguese-language version of the Conner-Davidson Resilience Scale–10 (CD-RISC-10), a ten-item instrument with a five-point Likert response scale, with responses ranging from 'Totally disagree (0)' to 'Totally agree (5)' (e.g., 'I am able to handle stress'; 'I am able to not get discouraged by failure'). The CD-RISC-10 has good psychometric properties (α=.85) similar to the original version, and, therefore, is adequate to use among the Portuguese population (Almeida et al., 2020). Reliability analysis for this study was α=.893.

Procedures

A website was created to disseminate the questionnaire online through mailing lists and social media from May to October 2021, using a convenience sample method. This research was approved by the Ethical Committee of the University of Beira Interior (Portugal): CE-UBI-Pj-2021-047, and it respects the ethical principles of informed consent, anonymity, confidentiality, respect for physical and psychological integrity, beneficence, and the right to withdraw at any time. The data bases were encrypted, and no identifiable participant information is accessible by the research team, namely the IP addresses.

4. Data Analysis

Descriptive statistics for sociodemographic variables were performed using IBM SPSS Statistics for Windows, Version 28.0. To compare differences in positive factors (social support, self-esteem, and resilience), psychologic symptomology/mental health, and suicidal behavior between the comparison groups (CPLC), we carried out a one-way ANOVA. We collapsed the participants from PALOP into one group due to the small sample size. Pearson's correlations were conducted to identify the correlations between the positive factors, mental health, and suicidal behavior. Finally, two hierarchical linear regression analyses were performed to examine the effects of independent variables (age, gender, sexual orientation, socioeconomic status, country of residency, social support, self-esteem, and resilience) on the dependent variables (mental health and probability of suicide in the future).

5. Results

Differences in mental health, suicidal behavior, and positive factors by country of residence (Portugal, Brazil, PALOP) are presented in Table 2. Statistically significant differences were found between the CPLC countries for social support, self-esteem, resilience, adverse mental health, and suicidal behavior ($p<.05$), with the exception of suicide attempt throughout life ($F(2) = .451$; $p = .637$) and suicidal attempt in the last 12 months ($F(2) = 1.913$; $p = .148$).

Table 2: Mental health, suicidal behavior and positive factors by country of residence

	Country of residence	M (SD)	F(df)	*p*
Social support	Portugal	5.79 (.95)	9.526(2; 989)	.000**
	Brazil	5.53 (1.14)		
	PALOP	5.42 (1.07)		
Self-esteem	Portugal	3.13 (.54)	6.712(2; 990)	.001*
	Brazil	3.19 (.53)		
	PALOP	3.29 (.47)		
Resilience	Portugal	3.78 (.63)	29.037(2; 991)	.000**
	Brazil	3.87 (.64)		
	PALOP	4.14 (.54)		
Psychological symptoms	Portugal	.76 (.58)	11.101(2; 991)	.000**
	Brazil	.93 (.71)		
	PALOP	.71 (.63)		
Suicidal ideation	Portugal	1.48 (.60)	11.441(2; 945)	.000**
	Brazil	1.56 (.66)		
	PALOP	1.33 (.55)		
Suicide attempt	Portugal	1.17 (.58)	.451(2; 989)	.637
	Brazil	1.20 (.63)		
	PALOP	1.16 (.55)		
Suicidal ideation (<12 months)	Portugal	1.33 (.86)	7.112(2; 987)	.000**
	Brazil	1.44 (.92)		

	Country of residence	M (SD)	F(df)	p
	PALOP	1.20 (.63)		
Suicidal attempt (<12 months)	Portugal	1.06 (.38)		
	Brazil	1.03 (.23)	1.913(2; 986)	.148
	PALOP	1.08 (.42)		
Suicide risk	Portugal	1.44 (.97)		
	Brazil	1.38 (.99)	5.525(2; 981)	.004*
	PALOP	1.20 (.71)		
*p<.05 **p<.001				

Source: own representation

Table 3 shows the Pearson's correlation coefficient test results between the positive factors, mental health, and suicidal behavior. Social support, self-esteem, and resilience were all inversely correlated with adverse mental health (social support: r=-.275; p<.001; self-esteem: r=-.531; p<.001; resilience r=-.412; p<.001) and suicidal behavior (social support: r=-.223; p<.001; self-esteem: r=-.291; p<.001; resilience: r=-.237; p<.001).

Table 3: Pearson's correlations for mental health, suicidal behavior,

and positive factors

	1	2	3	4	5
1 – Psychological symptoms	–				
2 – Suicide risk	.357**	–			
3 – Social support	-.275**	-.223**	–		
4 – Self-esteem	-.531**	-.291**	.298**	–	
5 – Resilience	-.412**	-.237**	.202**	.610**	–

**p<.001   *Source: own representation*

We carried out a hierarchical linear regression analysis to assess the effect of sociodemographic variables, country of residence, and positive factors in predicting mental health (Table 4). The variables 'age', 'gender', 'sexual orientation' and 'socioeconomic status' were added to the first block (Model I). The second block (Model II) included all variables from Model I as well as 'country of residence'. The third block (Model III) included positive factors variables ('social support', 'self-esteem' and 'resilience') as well as all variables from Model II. The first block explained 11.5% of the variance in mental health and this variance did not change when the 'country of residence' variable was added (Model II). The third block, however, explained 33.5% of variance in mental health, with self-esteem being the strongest predictor among the positive factors.

Table 4: Hierarchical linear regression analysis predicting mental health

Variable	Model I			Model II			Model III		
	B	SE B	β	B	SE B	β	B	SE B	β
Age	-.007	.002	-.146**	-.007	.002	-.147**	-.003	.001	-.065*
Gender	.191	.041	.147**	.195	.042	.15**	.156	.037	.12**
Sexual orientation	.106	.04	.085*	.109	.04	.087*	.051	.035	.041
Socioeconomic status	-.163	.027	-.199**	-.161	.027	-.196**	-.062	.024	-.075**
Country of residence				.013	.028	.015	.054	.025	.063*
Social support							-.08	.018	-.131**
Self-esteem							-.439	.046	-.349**
Resilience							-.144	.037	-.139**
R^2		.115			.115			.335	
F		29.841**			23.895**			57.481**	

*p<.05, **p<.001   Source: own representation

We performed another hierarchical linear regression analysis maintaining the same structure of the previous model but changing the dependent variable to assess the effect of the same variables on suicidal behavior (Table 5). The first block (Model I) explained 5.4% of the variance in suicidal behavior and adding the variable 'country of residence' on the second block (Model II) explained 6% of the variance in suicidal behavior. Finally, the third block (Model III) explained 14.2% of the variance in suicidal behavior, with self-esteem being once again the strongest predictor.

Table 5: Hierarchical linear regression analysis predicting suicidal behavior

Variable	Model I			Model II			Model III		
	B	SE B	β	B	SE B	β	B	SE B	β
Age	-.001	.002	-.014	-.001	.002	-.008	.002	.002	.031
Gender	.08	.06	.044	.044	.061	.25	.031	.059	.017
Sexual orientation	.364	.058	.208**	.345	.059	.197**	.296	.056	.169**
Socioeconomic status	-.092	.039	-.081*	-.105	.039	-.092*	-.016	.038	-.014
Country of residence				-.098	.04	-.082*	-.085	.04	-.071*
Social support							-.127	.029	-.149**
Self-esteem							-.355	.073	-.202**
Resilience							-0.42	.058	-.029**
R^2		.054			.06			.142	
F		12.988**			11.635**			18.648**	

*p<.05
**p<.001

Source: own representation

6. Discussion

The main purpose of this study was to assess the importance of social support, self-esteem, and resilience in protecting against adverse mental health outcomes and suicidal behavior among citizens of the CPLC. The study findings demonstrate that, as seen throughout existing literature, these three factors have a positive impact in protecting against mental health symptoms and suicidal behaviors, generating a positive self-assessment and overall self-confidence which, in turn, provide positive coping mechanisms that allow people to adapt and overcome challenges and difficulties (Liu et al., 2021).

The results showed that PALOP participants reported lower levels of psychological symptoms and suicidal behaviors, which is consistent with the fact that they also had the highest scores for self-esteem and resilience. Although many regions of PALOP face a myriad of hardships, including chronic conflict and violence and intergenerational structural disadvantages and inequalities (WHO, 2021a), social relationships and resilience-enablers combined with cultural practices bolster positive adjustment capabilities in these populations (Dass-Brailsford, 2005; Theron, 2020; van Schalkwyk & Wissing, 2010). Research on resilience found that African cultures value religious beliefs and practices (Botha & van den Berg, 2016; Dass-Brailsford, 2005; Theron, 2020), and that both spirituality and religious orientation may lead to more resilient outcomes (Dass-Brailsford, 2005). One explanation for this may be that religious practices and beliefs contribute to emotional regulation abilities (Botha & van den Berg, 2016). Additionally, many African cultures promote a strong sense of community, hospitality, and union, which in turn promotes interactions with people, animals, and the environment, which serve as relevant protective relationships (Theron, 2020).

Despite the fact that overall symptoms do not constitute a clinical sample, Brazilian participants showed the highest levels of psychological symptoms. These results mimic tendencies of previous mental health investigations in this country, including findings that suicidal behaviors have underlying risk factors such as mental disorders, challenging environments, and sociodemographic characteristics (Blay et al., 2018; Botega, 2014; Mangolini et al., 2019; Ramos-Oliveira et al., 2017; D. F. Silva & Santana, 2012). In fact, Brazil has a high prevalence of anxiety disorders and depression (Mangolini et al., 2019), which has been continuously justified throughout literature by the highly unequal and adverse socioeconomic contexts, given the existent accentuated social inequalities (Ramos-Oliveira et al., 2017; Silva & Santana, 2012) and income disparities (Blay et al., 2018). These inequalities reflect on poor mental health services, with effects on availability, access, and quality of mental health care services (Ramos-Oliveira et al., 2017). This is further aggravated by exposure to violence in urban settings, which carries an exacerbated risk for mental health problems (Blay et al., 2018).

The present study found that Brazilian participants had the highest levels of suicidal ideation and suicide attempts, which align with findings from previous investigations (Botega, 2014). WHO reports (WHO, 2021b) also state that Brazil is among the top ten countries globally with highest absolute number of suicides due to its large population, although the suicide mortality index is lower than Africa and Western Europe (WHO,

2021b). Despite its multifactorial nature, the risk for suicidal behaviors increases with the presence of mental disorders and previous suicide attempt history (Barbosa & Teixeira, 2021; Botega, 2014). Given that Brazilian participants in the present sample exhibited the highest levels of both these risk factors and suicidal behaviors, these associations are in accordance with existing literature. A few studies have tried to explain the high levels of mental health problems and suicidal behaviors in Brazil amidst its psychosocial context, finding that socioeconomic problems (e.g., unemployment, homelessness), oppressive climate (e.g., sexism and racism), socio-demographic characteristics that increase vulnerability to mental disorders, and a lack of social support all contribute to higher rates of suicidal behaviors in this country (Abuabara et al., 2017; Félix et al., 2016).

On the other hand, Portugal showed the highest scores for suicide risk (i.e., probability of suicide in the future), despite having the highest levels for social support among the three groups. As previously stated, social support is an important protective factor in mitigating suicide risk (Cortesão, 2020; Faria et al., 2019; Morgado, 2018; Stickley & Koyanagi, 2016). This inconsistency may be due to higher rates of masked suicides, where inaccurate registration procedures and miscommunication between all elements involved in death registration (e.g., police officers, codifiers) lead to underreporting (Gusmão et al., 2021; Pritchard & Hansen, 2015). Portugal presents a high level of undetermined deaths compared to other European countries (Värnik et al., 2010), making it impossible to determine whether the cause of these deaths was accidental, self-harm, or assault (Pritchard & Hansen, 2015). Another justification for our results may be that in the northern and southern regions, where suicide rates tend to be higher, there are also strong cultural roots expressed through social values, attitudes, and behaviors (e.g., religious beliefs and practices) that may discourage suicide reporting (Santana et al., 2015). Furthermore, there is reluctance to report suicide within Catholic countries such as Portugal (Pritchard & Hansen, 2015), which may reinforce the underreporting of suicidal tendencies (Santana et al., 2015), thus increasing future suicide risk by maintaining suicide stigma.

In the perspective of Positive Psychology, individuals and professionals should aim not only to eliminate or mitigate negative states, but also to improve positive states by strengthening individuals' positive experiences and reinforcing positive resources that are important to achieving well-being (Harding et al., 2019; van Schalkwyk & Wissing, 2010). In the present study, social support, self-esteem, and resilience were found to be negatively correlated with psychological symptoms and suicidal behaviors, results that agree with previous investigations (Almeida, 2016; Martínez-Martí & Ruch, 2017; Matel-Anderson et al., 2018; Sher, 2019; Venicio & Daiuto, 2017). Positive relation-ships, positive self-image, and constructive coping mechanisms promote adjusted psychological well-being, as they build psychological resources and strengths that create a sense of accomplishment when dealing with adverse circumstances. Additionally, they help to develop a sense of comfort and self-worth when interacting in relationships, thus playing a vital part in protecting against adverse mental health outcomes and suicidal behaviors (Theron, 2020; van Schalkwyk & Wissing, 2010).

When it comes to engaging in self-harming behavior, high social support is related to a high level of willingness to seek help and support from others, and, therefore, acts as a

way of reducing tension and enhancing emotional regulation (van der Wal & George, 2018). As such, social support helps alleviate risk factors for psychopathology and suicidal behavior (e.g., emotional dysregulation, social isolation) by building and reinforcing relationship bonds, promoting a sense of belonging, and buffering negative effects of stress through healthier coping mechanisms. These social resources may help compensate for a lack of internal resources, reducing the risk of mental health problems and suicidal behaviors (Karaman & Efilti, 2019; Szanto & Whitman, 2021; Yıldırım & Tanrıverdi, 2021).

Furthermore, our research shows stronger correlations, as well as predictive power, for self-esteem in relation to mental health and suicidal behaviors. Previous studies have shown that self-esteem is inversely correlated to psychological symptoms and suicidal behaviors, effectively predicting these outcomes (Acácio, 2021; Barrera et al., 2020; Bovier et al., 2004; Karaca et al., 2019; Lee, 2020; Soto-Sanz et al., 2019). This may be because self-esteem promotes a positive outlook on personal competence and good judgement of one's skills and self-worth (Karaman & Efilti, 2019; Kurtović et al., 2018).

Likewise, resilience, seen as intrinsic strengths (e.g., optimism, hardiness) that reflect adaptative coping strategies and positive emotions, creates fundamental skills to effectively manage difficult situations, reducing negative psychological burden (e.g., intrusive thoughts, feeling of imprisonment) through adequate emotional and cognitive processing (Liu et al., 2021; Moore & Woodcock, 2017; Yıldırım & Tanrıverdi, 2021).

The above-mentioned positive factors operate in a dynamic manner, in the sense that they exert mutual influence over each other: individuals with higher resilience will, in turn, develop a more positive perception of themselves, increasing self-esteem; this raises awareness of their own resources and skills that, in the same way, contribute to building resilience and to developing relationships which form reliable sources for social support and promote autonomy and self-acceptance (Harding et al., 2019; Kurtović et al., 2018).

This study is not without its limitations. The fact that data was collected online and the convenience sample was highly educated compromised representativeness. Additionally, although the CPLC shares a common language, we cannot deny the influence of cultural differences in terms of sociopolitical and demographic realities which may have interfered with results. The questionnaire may have also been subject to social desirability bias, given the sensitive nature and personal demand and vulnerability posed by some of the dimensions assessed (e.g., suicidal behaviors). Furthermore, the cross-sectional nature of the study hinders the ability to monitor changes over time and establish causal relations between variables. Another difficulty was the lack of research and/or lack of access to research regarding the study variables within PALOP. This is aggravated by the absence of mental health data in some of these countries (WHO, 2020) and the use of western instruments with no cultural adaptation and validation in African countries (van Rensburg et al., 2015).

Our results contribute to existing research on positive factors and mental health, spreading awareness about the importance of health, educational, and social policies. These policies endorse formal environments for the development of positive skills,

which are vital to the promotion of mental health, well-being, and general quality of life. This holds governments responsible for the development of policies and measures that emphasize and prioritize plans for mental health promotion and suicide prevention, and for investing in mental health professionals' suicide prevention training, as well as other non-specialized health care workers (e.g., physicians, nurses) and gatekeepers (e.g., teachers, policemen, firefighters) (WHO, 2020). It also highlights the relevance of epidemiologic studies that contribute to the assessment and planning of prevention and promotion programs in schools and communities. It should serve as an incentive to scientific research on the topic of positive and protective factors for mental health and suicidal behavior, particularly in PALOP. Future studies should include longitudinal, mixed-method, and qualitative designs that complement the quantitative data collected, focusing on the specific interactions of the positive factors and their mediation and/or moderation effects. Additionally, future research should investigate the development, implementation and assessment of social support, self-esteem and resilience-based programs among children and adolescents, families, and communities.

This study highlights positive factors such as social support, self-esteem, and resilience as protection against the manifestation of psychological symptomatology and suicidal behaviors. Self-esteem took on an especially relevant role in this study, and this might be explained due to its intrinsic nature that has an overall influence on other psychological assets. Our study also comes to show that it is imperative to take cultural differences into account when planning preventative and protective programs that should be specific to cultural needs. Finally, positive psychology research comes to reinforce the investment in positive adaptation mechanisms, which have been continuously proven to be strong predictors of augmented mental health and human development indicators.

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Declaration of conflicting interests

The authors report there are no competing interests to declare.

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