

Research Article

Volume 19 Issue 3 - September 2022
DOI: 10.19080/PBSIJ.2022.19.556011

Psychol Behav Sci Int J

Copyright © All rights are reserved by Alexandra Fonseca

Interpersonal Problems, Resilience, Self-Regulation and Depression on A Non-Clinical Female Population - A Cross-Sectional Study



Alexandra Fonseca^{1*}, Margarida Gaspar de Matos², Carlos Gois³ and Fábio Botelho Guedes⁴

¹Department of Education, Social Sciences and Humanities, Faculty of Human Kinetics, Lisbon University, Portugal; Psychiatric Service of the Department of Neuroscience and Mental Health of CHULN - Santa Maria Hospital, Lisbon, Portugal; and ISAMB, Faculty of Medicine, Lisbon University, Portugal

²ISAMB, Faculty of Medicine, Lisbon University, Portugal

³Psychiatric Service of the Department of Neuroscience and Mental Health of CHULN - Santa Maria Hospital, Lisbon, Portugal; Faculty of Medicine, Lisbon University, Lisbon, Portugal; and ISAMB, Faculty of Medicine, Lisbon University, Portugal

⁴Department of Education, Social Sciences and Humanities, Faculty of Human Kinetics, Lisbon University; and ISAMB, Faculty of Medicine, Lisbon University, Portugal

Submission: August 25, 2022; **Published:** September 07, 2022

***Corresponding author:** Alexandra Fonseca, Department of Education, Social Sciences and Humanities, Faculty of Human Kinetics, Lisbon University, Portugal; Psychiatric Service of the Department of Neuroscience and Mental Health of CHULN - Santa Maria Hospital, Lisbon, Portugal; and ISAMB, Faculty of Medicine, Lisbon University, Portugal

Abstract

The high prevalence of depressive disorders is documented in different countries and ethnic groups, significantly higher in women than in men and currently the leading cause of illness-related disability in the female population. This study examines how interpersonal problems, resilience, self-regulation and depression are related to each other in a sample of Portuguese women from the general population. A quantitative cross-sectional study was conducted among Portuguese women over 18 years of age by sharing an online questionnaire. The Interpersonal Problems Inventory, Adult Resilience Scale, Self-Regulation Questions and Beck Depression Inventory in short form were used. Results: A total of 1842 completed the questionnaire. The mean Depression score was low. Self-sacrificing, overly accommodating and nonassertive were the interpersonal problems sub-scales with the highest scores. Depression correlated positively with interpersonal problems and negatively with resilience and self-regulation. Four predictors collectively can account for 33.4% of the variance in depression. Age and interpersonal problems positively predict depression. Resilience and self-regulation predict depression negatively. Conclusion: The tendency to deal with interpersonal problems with a friendly-submissive style should alert us to the risk of reflecting self-evaluation and submission and be considered in programs that promote women's social skills, decision-making ability and well-being. In addition to interpersonal skills, the promotion of resilience and self-regulation should be considered in public health strategies aimed at reducing the risk of depression. This is an important message for health professionals as well as for public policy and governors in the area of mental health and well-being among women.

Keywords: Depression; Interpersonal problems; Resilience; Self-regulation; Women

Abbreviations: IIP-64: Inventory of Interpersonal Problems; RSA: Resilience Scale for Adults; BDI-SF: Beck Depression Inventory - short form; SR: Self-regulation; IIP1: Inventory of Interpersonal Problems subscale Domineering/Controlling; IP2: Inventory of Interpersonal Problems subscale Vindictive/Self-Centered; IIP3: Inventory of Interpersonal Problems subscale Cold/Distant; IIP4: Inventory of Interpersonal Problems subscale Socially Inhibited; IIP5: Inventory of Interpersonal Problems subscale Nonassertive; IIP6: Inventory of Interpersonal Problems subscale Overly Accommodating; IIP7: Inventory of Interpersonal Problems subscale Self-Sacrificing; IIP8: Inventory of Interpersonal Problems subscale Intrusive/Needy; RSA1: Resilience Scale for Adults sub-scale Perception of the Self; RSA2: Resilience Scale for Adults sub-scale Planned Future; RSA3: Resilience Scale for Adults sub-scale Social Competence; RSA4: Resilience Scale for Adults sub-scale Family Cohesion; RSA5: Resilience Scale for Adults sub-scale Social Resources; RSA6: Resilience Scale for Adults sub-scale Structured Style

Introduction

The high prevalence of depressive disorders is documented in different countries and ethnic groups [1], being significantly

higher in women than in men and currently the leading cause of illness-related disability in the female population [2]. Social

support and interpersonal problems play an essential role [3] and are related to various forms of psychopathology and their treatment, namely depressive disorders [4,5]. Women appear to have more extensive and intimate social networks than men and are more sensitive to low social support and interpersonal problems, which play an etiologic role in depression [6,7]. Given the high prevalence of interpersonal problems in depressed women [8,9], it is crucial to identify psychological processes that may interfere with or mediate this relationship. Resilience [10,11] and self-regulation [12] have been related to interpersonal problems and depression, with negative correlations. In a recent study exploring interpersonal relationships, resilience and depressive symptoms in adolescents, the association between quality interpersonal relationships and resilience protect against depressive symptoms [11]. Still, there is a lack of research in this interface area, and most research has been conducted among specific sub-populations, not the adult general population.

Interpersonal Problems

It is widely accepted that dealing with social interactions adequately and flexibly is a critical component of psychological health [13]. Considering that the personal need to adapt to the interpersonal environment implies experiences of frustration, several tensions in relationships and psychological distress [14], the interpersonal theory establishes significant connections between mood and life circumstances. It postulates that improving communications and interactions with significant others increases the experience of positive feelings and allows the subject's interpersonal environment to be restructured [14].

Perceived social support and objective social network size appear to be protective factors against depression in the general population [15]. In addition, evidence suggests that individuals who report low social support and experience tension in their relationships will probably develop a disorder [16].

Resilience

Although studies take the link between interpersonal functioning - as a potential social stressor factor - and depression for granted, the last decades have brought us a new focus of research on mechanisms that can modify these causal relationships [11]. Furthermore, evidence of the possibility of positive adjustment to adversity [17,18], increases interest in areas such as resilience and its potential mental health benefits, including depression. Recent studies indicate that resilience is negatively associated with adolescent and adult depression [10,11].

Originally defined as an individual's ability to successfully adapt to challenging life stressors [19] and adversities [20], resilience is now recognized as a multidimensional concept influenced by internal and environmental resources [21,22]. Psychological attributes, family support and external support systems have been identified as the most significant determinants

of a healthy adjustment, considered resilient protective resources [23].

The importance of interpersonal relationship patterns in resilience development has gained prominence, along with the study of the interaction between both factors [24]. Safe environments, which allow for shared experiences, ways of thinking and feeling, are assumed as a buffer against the impact of adversity [11].

Self-Regulation

Self-regulation is often characterized as a core characteristic of psychological functioning and is described by several theories and models. The diversity of conceptual and operational self-regulation models seems to make it impossible to integrate them into a comprehensive model [25]. Nevertheless, the concept typically concerns the dynamic process of steering one's behaviour toward a goal or desired end; it also involves taking action to reach it monitoring progress along the way. The desired goals can be specific behaviours, attitudes, thoughts or emotional states [26].

Depression

Depression is one of the most prevalent forms of disability globally, with a higher incidence in women [27]. However, although research shows an increasing trend towards depression in the general population [2], most depressive disorders do not receive adequate treatment [28]. These data justify studying indicators of depressive symptoms as well as positive factors that help prevent or reduce those symptoms in the general population, especially women.

According to that, the present study aimed to: 1) map the occurrence of different forms of interpersonal problems (IIP-64) in a non-clinical female sample (levels of interpersonal problems, the type and intensity of predominant interpersonal themes); 2) examine the extent to which interpersonal problems, resilience and self-regulation are related to depression; and 3) test the hypothesis that age, interpersonal problems, resilience and self-regulation can predict depression.

Materials and Methods

Procedure and participants

A quantitative cross-sectional study was conducted among the Portuguese female population. The inclusion criteria applied were: Portuguese women aged over 18 years, living in Portugal. A total sample of 1842 was obtained, aged between 18 and 81.

Instruments

Individual's completed measures of interpersonal problems (IIP-64), resilience (RSA), self-regulation and depression (BDI-SF-13). The prevalence of interpersonal problems was screened

using the Inventory of Interpersonal Problems (IIP-64) [14]. The Portuguese version of the IIP-64 was translated by Machado & Salgado [29]. The IIP-64 contains 64 items that describe common interpersonal problems. The questionnaire has two sections: the first section begins with "The following are things you have difficulty doing with other people"; the second section begins with "The following are things you do too much of". Answers are given on a 5-point Likert scale, ranging from "Not at all" to "Extremely", with higher values corresponding to greater interpersonal problems.

The IIP-64 consists of eight subscales of eight items each: 1) Domineering/ Controlling - being too aggressive; need to exercise control over others. 2) Vindictive/ Self-centered - Problems of hostile dominance, being suspicious and distrustful. 3) Cold/ Distant - Low degree of affection, connection and sympathy. 4) Socially Inhibited - Tendency to be socially anxious and shy. 5) Nonassertive - Having problems taking the initiative concerning others and coping with social challenges. 6) Overly Accommodating - Excesses of friendly submissiveness, being too permissive. 7) Self-Sacrificing - Tendency to affiliate excessively, being too eager to please others. 8) Intrusive/Needy - seeking attention inappropriately.

Raw subscale scores are obtained by calculating the sum of the eight-item responses for each of the eight subscales, and the sum of the eight subscales consists of the IIP total score. The Resilience Scale for Adults (RSA) [23,30], adapted for the Portuguese population [31,32], was used to assess the participants' resilience. RSA consists of 33 items, evaluated on a 7-point Likert scale, with a semantic differential format on each item. This scale evaluates six factors of resilience, four of which assess personal attributes, one measures the family support, and the other quantifies social networks: 1) Perception of the Self - assesses self-confidence, self-efficacy, and realistic expectations. 2) Planned Future - refers to the ability to plan and formulate clear and achievable goals and have an optimistic outlook for one's future. 3) Social Competence - assesses the ability to be comfortable, initiate verbal contact, and be flexible in social settings; the ability to form new friendships and the positive use of humor. 4) Structured Style - Evaluates goal-oriented planning skills, the ability to have routines and organize one's own time 5) Family Cohesion - Assesses the shared values in the family, personal appreciation of the time spent together, loyalty and appreciation among members. 6) Social Resources - Measures social support, presence of significant persons, and the possibility of confiding in and being encouraged outside the family.

The RSA results' interpretation is made linearly from the results obtained in the different factors and the full scale, with a higher result corresponding to better levels of resilience.

To assess self-regulation, 4 questions were included:

Item 1: How often have I felt that I wasn't being able to control

important things in my life?

Item 2: How often have I felt confident in my ability to deal with personal issues?

Item 3: How often have I felt that things were going my way (how I wanted to)?

Item 4: How often have I felt that the difficulties were piling up thus and so that I couldn't get over them?

Answers are given on a 5-point Likert scale, 0 being never and 4 always/almost always. Higher values reveal greater capacity for self-regulation. Depression was assessed using the 13-item Beck Depression Inventory - short form (BDI-SF) [33]. Correlation's between the BDI 21 item scale and the short form has ranged .89 to .97, suggesting that the 13-item short form can be an acceptable substitute for the long one [34]. On a Likert scale arranged in order of progressive severity, the subject is asked to select the one that best describes the way they have been feeling during the last two weeks, including today. Scores were regarded as a continuous variable, with higher scores corresponding to greater depression severity.

Measures

The sociodemographic variables were obtained concerning the participant's age, school grade, professional status, marital status, number of children and household status. Measures and variables under study are presented on table 1.

Data Collection

Data was collected from April to September 2021, by sharing an online self-fulfilling questionnaire through different social media. The data collection tool comprised three sections: informed consent; sociodemographic variables; and scales to assess interpersonal problems, resilience, self-regulation and depression. At the beginning of the questionnaire, there was a brief description of the study purpose; those who responded confirmed their informed consent electronically. Participation was voluntary and anonymous. The study was approved by the Ethical Committee of the Center for Electroencephalography and Clinical Neurophysiology (CENC - registration number 2/2021).

Statistical Analyses

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 25. Descriptive statistics (mean, standard deviation, minimum, maximum, number and percentages) was performed to characterize the sample. 17 RSA item scores have been reversed: 3, 6, 7, 8, 10, 11, 14, 15, 18, 19, 22, 23, 26, 28, 29, 31,33. Scores of items 1 and 4 of the self-regulation scale have been reversed.

Reliability (internal consistency) of IIP64, RSA, Self-regulation scale and BDI-SF was examined using Cronbach's alpha. Descriptive statistics (i.e., mean and standard deviation)

were studied for the IIP64 and RSA total scales and all subscales, self-regulation total and BDI-SF total scale. Bivariate zero-order Pearson correlations were conducted to examine associations between interpersonal problems, resilience, self-regulation

and depression. A significance level of $p < 0.05$ was determined. Multiple linear regression analysis was carried out aiming at proposing an association model between depression and other independent variables in study.

Table 1: Measures and variables under study.

Variables	Range
Age (years)	Min=18; Max= 81
School grade	1 – Up to 12 years of schooling; 2 – Graduation; 3 – Higher than graduation
Professional Status	1 – Student; 2 – Active professional activity; 3 – Unemployed; 4 – Sick leave; 5 – Retired
Marital Status	1 – Married; 2 – Non-marital partnership; 3 – Single; 4 – Divorced; 5 – Widow
Number of Children	1 – 0; 2 – 1; 3 – 2; 4 – 3
Household Status	1 – Living alone; 2 – Living accompanied
Interpersonal Problems (IIP-64)	- Total scale 64 items (Min=0; Max=256, $\alpha=0.93$)
	- IIP1: Domineering/Controlling (Min=0; Max=32, $\alpha=0.67$)
	- IP2: Vindictive/Self-Centered (Min=0; Max=32, $\alpha=0.64$)
	- IIP3: Cold/Distant (Min=0; Max=32, $\alpha=0.74$)
	- IIP4: Socially Inhibited (Min=0; Max=32, $\alpha=0.82$)
	- IIP5: Nonassertive (Min=0; Max=32, $\alpha=0.86$)
	- IIP6: Overly Accommodating (Min=0; Max=32, $\alpha=0.76$)
	- IIP7: Self-Sacrificing (Min=0; Max=32, $\alpha=0.77$)
	- IIP8: Intrusive/Needy (Min=0; Max=32, $\alpha=0.57$)
Resilience	- Total scale 33 items (Min=33; Max=231, $\alpha=0.90$)
(RSA)	- RSA1: Perception of the Self (Min=6; Max=42, $\alpha=0.78$)
	- RSA2: Planned Future (Min=4; Max=28, $\alpha=0.74$)
	- RSA3: Social Competence (Min=6; Max=42, $\alpha=0.72$)
	- RSA4: Family Cohesion (Min=6; Max=42, $\alpha=0.84$)
	- RSA5: Social Resources (Min=7; Max=49, $\alpha=0.80$)
	- RSA6: Structured Style (Min=4; Max=28, $\alpha=0.40$)
Self-regulation	- Self-regulation (Min=4; Max=20, $\alpha=0.75$)
Depression (BDI-SF)	- Total scale 13 items (Min=0; Max=42, $\alpha=0.73$)

IIP-64, Inventory of Interpersonal Problems; RSA, Resilience Scale for Adults; BDI-SF, Beck Depression Inventory – short form; α , Cronbach’s alpha.

Result

Excellent internal consistency reliability was found in the Total scale of the Inventory of Interpersonal Problems and good internal consistency in IIP3 Cold/Distant, IIP4 Socially Inhibited, IIP5 Nonassertive, IIP6 Overly Accommodating and IIP7 Self-Sacrificing; while IP1Domineering/Controlling, IIP2 Vindictive/Self-Centered and IIP8 Intrusive/Needy presented poor reliability (see Table 1).

The total scale of the Resilience Scale for Adults had excellent internal consistency reliability; RSA1 Perception of the Self, RSA2 Planned Future, RSA3 Social Competence, RSA4 Family Cohesion and RSA5 Social Resources showed good internal consistency, and

RSA6 Structured Style presented poor reliability.

Good internal consistency reliability was found in the four self-regulation items and Beck Depression Inventory - short form.

Table 2 presents the sample demographic characteristics. All age groups were well represented ($190 \geq n \geq 525$). However, the sub-groups of 30 to 39 years and over 60 had the lowest number of participants. 76.0% ($n= 1401$) of the sample’s education level had graduation and higher than graduation, and 68.8% ($n= 1267$) had an active professional activity. Nearly half of the sample was married or in a non-marital partnership (49.1%). Mean, Standard deviations, minimum and maximum values (range) are given in Table 3.

Table 2: Sociodemographic characteristics (n=1842).

	M±SD	% (n)
Age (years)	43.7±14.1	
18 to 29		22.6 (414)
30 to 39		10.5 (195)
40 to 49		28.0 (518)
50 to 59		24.4 (525)
≥ 60		10.5 (190)
Education Level		
Up to 12 years of schooling		24.1 (441)
Graduation		48.5 (894)
Higher than graduation		27.5 (507)
Professional Status		
Student		14.1 (260)
Active professional activity		68.8 (1267)
Unemployed		9.3 (171)
Sick leave		1.2 (22)
Retired		6.6 (122)
Marital Status		
Married		35.5 (653)
Non-marital partnership		13.6 (250)
Single		32.4 (596)
Divorced		16.6 (305)
Widow		2.1 (38)
Number of Children		
0		37.3 (687)
1		20.2 (372)
2		32.2 (593)
3 or more		10.3 (190)
Household Status		
Living alone		18.8 (347)
Living accompanied		1495 (81.2)

n, number; M, mean; SD, standard deviation; %, percentage

Table 3: Descriptive Statistics for all variables.

	M±SD	Min	Max
IIP-64 (Total Scale: 64 itens)	63.10±28.25	2	162
IIP1: Domineering/Controlling	5.76±3.98	0	24
IIP2 Vindictive/Self-Centered	5.18±3.51	0	28
IIP3: Cold/Distant	5.55±4.42	0	26
IIP4: Socially Inhibited	6.85±5.36	0	28
IIP5: Nonassertive	9.96±6.32	0	32
IIP6: Overly Accommodating	10.20±5.23	0	30
IIP7: Self-Sacrificing	11.63±5.50	0	30
IIP8: Intrusive/Needy	7.96±4.04	0	24
RSA (Total Scale: 33 itens)	171.55±26.92	41	229
RSA1: Perception of the Self	29.47±7.14	6	42
RSA2: Planned Future	19.01±5.15	4	28
RSA3: Social Competence	30.68±6.51	6	42
RSA4: Family Cohesion	31.77±7.55	6	42
RSA5: Social Resources	41.46±6.78	7	49
RSA6: Structured Style	19.15±4.36	4	28
Self-regulation	13.55±2.71	4	20
BDI-SF (Total Scale: 13 itens)	6.59±4.60	0	26

IIP, Inventory of Interpersonal Problems; RSA, Resilience Scale for Adults; BDI-SF, Beck Depression Inventory – short form

Regarding interpersonal problems, results indicated a low mean score on the total scale, with higher means in Self-Sacrificing (IIP7), Overly Accommodating (IIP6) and Nonassertive (IIP5). With lower average results, the Vindictive/Self-Centered (IIP2), Cold/Distant (IIP3) and Domineering/Controlling (IIP1) subscales stand out. The higher mean scores for resilience were observed in Social Resources (RSA5), Family Cohesion (RSA4), Social Competence (RSA3) and Perception of the Self (RSA1), and a good score was reported on the total scale. Self-regulation score was moderated. Depression mean score was low.

Table 4 presents the correlation coefficients for the continuous variables, namely interpersonal problems, resilience, self-regulation and depression. With one exception, all subscales of interpersonal problems and the total score were negatively correlated with all dimensions and total score of resilience, $r(1842)$ between -0.069 and -0.659 , $\rho \leq .001$. The exception is the interpersonal problems IIP8 Intrusive/Needy subscale and the resilience RSA3 Social Competence dimension, which do not significantly correlate with each other.

Depression scale score correlates positively with the 8 scales of interpersonal problems and with the total score, $r(1842)$ between $.242$ and $.399$, $\rho \leq .001$; correlates negatively with all resilience dimensions and with the total score, $r(1842)$ between $-.220$ and $-.493$, $\rho \leq .001$; and correlates negatively with self-regulation, $r(1842) = -.506$, $\rho \leq .001$.

A multiple regression analysis was conducted to determine if age, interpersonal problems, resilience and self-regulation can influence women’s likelihood of having depression. Results show that the four predictors, collectively, may account for 33.4% of the variance in depression ($F(4,1836) = 231.719$, $p < .001$), with $R^2 = .335$.

Looking at the unique individual contributions of the predictors, age ($\beta = .093$, $t = 4.703$, $p < .001$) and interpersonal problems ($\beta = .147$, $t = 6.415$, $p < .001$) positively predict depression, and resilience ($\beta = -.233$, $t = -9.275$, $p < .001$) and self-regulation ($\beta = -.320$, $t = -12.989$, $p < .001$) negatively predict depression (Table 5).

Table 4: Pearson correlation between interpersonal problems scales and total score (evaluated by IIP-64), resilience factors and total score (evaluated by RSA), self-regulation-total and depression (BDI-SF).

	RSA 1	RSA 2	RSA 3	RSA 4	RSA 5	RSA 6	RSA T	SR	BDI-SF
IIP 1	-.264***	-.214***	-.261***	-.261***	-.286***	-.069*	-.330***	-.249***	.267***
IIP 2	-.319***	-.236***	-.347***	-.301***	-.336***	-.120***	-.403***	-.264***	.299***
IIP 3	-.398***	-.328***	-.495***	-.308***	-.383***	-.144***	-.495***	-.305***	.316***
IIP 4	-.483***	-.371***	-.659***	-.271***	-.402***	-.110***	-.553***	-.354***	.380***
IIP 5	-.504***	-.361***	-.346***	-.213***	-.258***	-.161***	-.437***	-.428***	.284***
IIP 6	-.373***	-.293***	-.209***	-.155***	-.190***	-.137***	-.319***	-.413***	.263***
IIP 7	-.293***	-.229***	-.086***	-.105***	-.129***	-.089***	-.218***	-.346***	.286***
IIP 8	-.259***	-.181***	-0.009	-.155***	-.152***	-.124***	-.207***	-.303***	.242***
IIP T	-.507***	-.387***	-.417***	-.293***	-.358***	-.164***	-.508***	-.464***	.399***
SR	.646***	.493***	.311***	.240***	.394***	.375***	.584***	1	-.506***
BDI-SF	-.463***	-.425***	-.297***	-.327***	-.356***	-.220***	-.493***	-.506***	1

Abbreviations: BDI-SV, Depression Inventory – short form; IIP, Inventory of Interpersonal Problems; RSA, Resilience Scale for Adults; SR, Self-regulation ;*p < 0.05, ***p < 0.001.

Table 5: Multiple linear regression analysis using BDI-SV scores as dependent variable.

Independent Variables	B	Std Error	β	t	P value
Constant	17.95	0.896		20.033	.000***
Age	0.03	0.006	0.093	4.703	.000***
Interpersonal problems	0.024	0.004	0.147	6.415	.000***
Resilience	-0.04	0.004	-0.233	-9.275	.000***
Self-regulation	-0.543	0.042	-0.32	-12.989	.000***

Abbreviations: BDI-SV, Depression Inventory – short form; Std Error, Coefficients Standard Error; b, Beta; ***p < 0.001.

Discussion

The sample doesn't present a high score on IIP-Total, meaning there isn't a high degree of interpersonal distress. The subscale with the highest score was IIP7 Self-sacrificing, which indicates a trend to easily connecting with others and providing help and care for people in need. When scores obtained in self-sacrificing are high, they imply the risk of finding it difficult to set limits on others or experiencing the other's needs as extremely pressing. The second highest score was obtained on the subscale IIP6 Overly Accommodating, reflecting a tendency to be pleasant to others and not feeling the need to express anger.

Although the results of the two subscales with higher scores do not reach values likely to provoke and maintain interpersonal problems in the majority of the sample, they seem to be associated with a tendency toward dependent personality traits [35], namely: difficulty expressing disagreement to avoid disapproval, and need of receiving nurturance and support from others.

IIP5 Nonassertive is the following sub-scale in order of obtained scores, indicating some lack of self-esteem and some

difficulty being firm in the face of conflicts, reinforcing the tendency stated above. The subscales with the lowest scores were IIP2 Vindictive/Self-centered, IIP3 Cold/Distant and IIP1 Domineering/Controlling. These data confirm the absence of difficulty in connecting with others (IIP3) and the lack of the need to be aggressive (IIP1) or to have a hostile dominance (IIP2). The Interpersonal Problems Inventory (IIP-64) used in this study has its origins in interpersonal theories, which postulate that all significant interpersonal experiences have a cognitive and emotional representation, and these representations impact perceptions, thoughts, and feelings about current interpersonal situations [36]. According to the Interpersonal Circumplex Model [37,38], two orthogonal dimensions describe the quality and intensity of interpersonal behaviour: a horizontal axis - Affiliation, and a vertical axis - Dominance. Interpersonal behaviours and traits form a circle that these primary coordinates can characterize. At the poles of the affiliation axis, we find the desire to be close and bond with others (right side) versus being distant and hostile (left side). The dominance axis has, at its extremes, striving to influence and control (upper end) versus submitting to others and not being assertive (lower end). The

circumplex circle can be divided into quadrants, the upper left representing problems associated with a dominant-hostile style, the upper right with a friendly-dominant style, the lower right with a friendly-submissive style, and the lower left with a hostile-submissive style.

The analysis of results obtained on the IIP-64 according to the circumplex circle pointed out that all the scales with the highest scores are in the lower right quadrant with a friendly-submissive style; and the scales with the lowest scores are in the upper left quadrant. The self-knowledge of interpersonal suffering and the relational implications of different patterns of conduct allow processes of individual and relational change. Identifying the most common types of interpersonal problems can help outline areas of psychoeducational intervention that strengthen the development of strategies to adapt to social interactions, promoting more satisfactory relationships and enhancing psychological well-being and public health.

In western societies, women have been given an increasingly demanding role, reconciling family support, particularly children, with work and social action. The ability to face challenges, overcome obstacles and make decisions is a presupposition of our societies, emphasizing the importance of the ability to meet and solve interpersonal problems in this empowerment process. The tendency to deal with interpersonal problems with a friendly-submissive style should alert us to the risk of reflecting self-devaluation and submission. The desire to feel comfortable in intimate relationships can trigger behaviours of being overly friendly to others, avoiding conflict and putting personal needs on the back burner. Such conflicts can arise from the history of interpersonal learning [39,36]. Since higher levels of interpersonal dependence - defined as the need for social and emotional support from others - may increase the risk of depression, the greater interpersonal dependence of women may contribute to the high prevalence of women's depression [40].

In this study, interpersonal problems and resilience were negatively correlated, which means that a decrease in interpersonal difficulties corresponds to an increase in resilience. The exception was the interpersonal problems IIP8 Intrusive/Needy subscale and the resilience RSA3 Social Competence dimension, which do not significantly correlate with each other. Although people with high scores on the Intrusive/Needs subscale may seek attention inappropriately, they describe themselves as friendly and sociable and may consider relationships more intimate than they really are [36], which may explain why they consider themselves capable of being comfortable in social environments, initiating verbal contact and forming new friendships - typical characteristics of social competence (RSA3). The fact that the evaluation scales used for interpersonal problems and resilience are self-reported allows for an eventual bias caused by subjectivity. Only using other assessment measures, namely related to personality characteristics, could complement this result's explanation. The

Depression scale score correlated positively with interpersonal problems and negatively with resilience and self-regulation.

High reports of depression were associated with increased reports of interpersonal problems. This data is aligned with evidence indicating that depressed patients commonly report interpersonal problems [41,42] and that interpersonal difficulties play a role in depression [43]. As interpersonal problems seem to result from early attachment experiences and are related to personality dimensions [44], promoting resources to better deal with interpersonal problems can be an essential public health measure, not only to prevent the development of a depressive disorder but also to avoid the repetition of conflicts cycles in family relationships.

A negative correlation was observed between depression and resilience. Based on the theoretical understanding of resilience as a multidimensional phenomenon, the RSA used in this study assesses protective factors in three main categories: personal attributes, family support and social networks [23]. The subscales with the highest negative correlations with depression were Perception of the Self and Planned Future, both included in the personal attributes category. The relationship between self-confidence - represented in the Perception of the Self subscale - and depression has been frequently established [45], constituting a focus of interventions both in the clinical setting and targeting the general population, including in the workplace [46]. The ability to plan and formulate clear and achievable goals and have an optimistic outlook for their future should also be considered, including further study of the significant factors for their development.

High reports of depression were associated with lower reports of self-regulation, meaning that having a sense of being able to control important things in life and feeling confident with personal issues seems to decrease with depression. Since self-regulation presupposes self-control, which guides behaviour in the desired direction [47], it allows for long-term goals. Considering Bandura's theory of self-regulation, the abilities of foresight and self-reflection allow one to exercise control over one's thoughts, feelings, and actions [48]. In this sense, it would be interesting to investigate to what extent these concepts may be related to the aforementioned resilience characteristics. This knowledge would allow us to develop more comprehensive depression prevention and mental health promotion programs.

Our findings show that age, interpersonal problems, resilience and self-regulation, may account for the variance in depression, with age and interpersonal problems positively predicting depression and resilience and self-regulation negatively predicting depression. This data suggests that women with depression are older, have more interpersonal problems, are less resilient and have less self-regulation. Some limitations should be considered when interpreting the results of the current study. The study was cross-sectional, not allowing the verification

of the temporal sequence of the independent and dependent variables and, therefore, the detection - in the associations found - of what precedes depression and what results from it. Studies with longitudinal designs should explore the causality between depression and interpersonal problems and possible protective factors. Furthermore, self-reported questionnaires may imply bias such as lack of objectivity and measurement errors, since they are based on the participant's perceptions.

The instruments used in the present study have been widely used and validated in previous research. However, the reliability and validity of the Portuguese translation of the Inventory of Interpersonal Problems (IIP-64) haven't yet been studied. Thus, it was only possible to use the direct results of IIP-64, analyzing the scores in the different sub-scales and identifying the areas of interpersonal problems considered most distressing. In addition, although it was ensured that pages in electronic format were easily downloaded and that their formatting was maintained in all software environments, very little is known about the possible psychometric implications of changing a survey from traditional to electronic format. Replicating this study on a male population is suggested to understand sex differences.

Conclusion

The tendency detected in Portuguese women to easily connect with others and provide help and care to people in need, to not feel the need to express anger or even to have difficulty expressing disagreement to avoid disapproval seems to be an important finding, particularly for its relationship with depressive risk. Dependent characteristics can lead a person to accommodate the wishes of another without being aware of the problem, acting on external approval and putting personal well-being in the background.

The challenge of detecting the population at risk for depression involves identifying characteristics that do not necessarily constitute acute symptoms. A set of features that presuppose difficulties in dealing with interpersonal problems, conflicts and decision-making and a lack of skills such as resilience and self-regulation must be assessed. However, since identifying individual experiences of specific risks has proven to be an unlikely task, the focus should be on optimizing the dissemination of mental health information and interventions that promote protective factors to enhance positive adaptation and an assertive interpersonal style. Online methods and forums for expression within schools and civil society settings should be priority avenues for primary prevention of psychological distress, namely depression, adopting a public health approach.

Acknowledgement

The first author was awarded a Doctoral Scholarship from the General Directorate of Higher Education, under Order No. 8584/2017 (2nd series), of 29 September.

Conflict of Interest

The authors declare they have no conflicts of interest to disclose.

References

1. Lim GY, Tam WW, Lu Y, Ho CS, Zhang MW, et al. (2018) Prevalence of Depression in the Community from 30 Countries between 1994 and 2014. *Sci Rep* 8(1): 2861.
2. Moreno-Agostino D, Wu Y, Daskalopoulou C, Hasan MT, Huisman M, et al. (2021) Global trends in the prevalence and incidence of depression: a systematic review and meta-analysis. *Journal of Affective Disorders* 281: 235-243.
3. Wang J, Mann F, Lloyd-Evans B, Ma R, Johnson S, et al. (2018) Associations between loneliness and perceived social support and outcomes of mental health problems: a systematic review. *BMC Psychiatry* 18: 156.
4. Santini ZI, Jose PE, Cornwell EY, Koyanagi A, Nielsen L, et al. (2020) Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): a longitudinal mediation analysis. *The Lancet Public Health* 5(1): e62-e70.
5. Scardera S, Perret LC, Ouellet-Morin I, Geneviève G, Robert-Paul J, et al. (2020) Association of Social Support During Adolescence With Depression, Anxiety, and Suicidal Ideation in Young Adults. *JAMA Netw Open* 3(12): e2027491.
6. Girus JS, Yang K (2015) Gender and depression. *Current Opinion in Psychology* 4: 53-60.
7. Kendler KS, Gardner CO (2014) Sex differences in the pathways to major depression: a study of opposite-sex twin pairs. *Am J Psychiatry* 171(4): 426-35.
8. Fonseca A, Lebre P, Fialho T, Gois C, Gaspar de Matos MG, et al. (2021a) Triggering factors of depression in women: a clinical population cross-sectional study. *Acta Psychopathologica* 7(5): 1-8.
9. Fonseca A, Lebre P, Fialho T, Gois C, Gaspar de Matos M, et al. (2021b) Female Depression: Adverse Childhood and Adolescent Experiences and its relations with Depressive Triggers. *Mediterranean Journal of Clinical Psychology*, 9(3).
10. Laird K, Lavretsky H, Paholpak P, Vlasova R, Roman M, et al. (2019) Clinical correlates of resilience factors in geriatric depression. *International Psychogeriatrics* 31(2): 193-202.
11. Lee TS, Wu Y, Chao E, Chang C, Hwang K, et al. (2021) Resilience as a mediator of interpersonal relationships and depressive symptoms amongst 10th to 12th grade students. *Journal of Affective Disorders* 278: 107-113.
12. Robson DA, Allen MS, Howard SJ (2020) Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychol Bull* 146(4): 324-354.
13. Girard JM, Aidan JM, Wright GC, Beeney JE, Lazarus SA, et al. (2017) Interpersonal problems across levels of the psychopathology hierarchy. *Compr Psychiatry* 79: 53-69.
14. Horowitz LM (2004) Interpersonal foundations of psychopathology. American Psychological Association.
15. Santini ZI, Koyanagi A, Tyrovolas S, Mason C, Haro JM, et al. (2015) The association between social relationships and depression: a systematic review. *J of Affect Disord* 175: 53-65.
16. Chen Y, Feeley TH (2014) Social support, social strain, loneliness, and well-being among older adults: an analysis of the Health and Retirement Study. *J Soc Pers Relat* 31(2): 141-161.

17. Bonanno GA, Diminich ED (2013) Annual Research Review: Positive adjustment to adversity-trajectories of minimal-impact resilience and emergent resilience. *Journal of Child Psychology and Psychiatry* 54(2): 378-401.
18. Jayawickreme E, Zachry CE (2018) Positive personality change following adversity. *The SAGE handbook of personality and individual differences*, pp. 450-464.
19. Alvord M, Grados J (2005) Enhancing resilience in children: A proactive approach. *Professional Psychology: Research and Practice* 36(3): 238-245.
20. Reich JW, Zautra AJ, Hall JS (2010) *Handbook of adult resilience*. Guilford Press, USA.
21. Morote R, Hjemdal O, Martinez Uribe P, Corveleyn J (2017) Psychometric properties of the Resilience Scale for Adults (RSA) and its relationship with life-stress, anxiety and depression in a Hispanic Latin-American community sample. *PloS one* 12(11): e0187954.
22. Windle G (2011) What is resilience? A review and concept analysis. *Reviews in Clinical Gerontology* 21(2): 152-169.
23. Friberg O, Hjemdal O, Rosenvinge J, Martinussen M (2003) A new rating scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research* 12(2): 65-76.
24. Masten AS, Cicchetti D (2016) Resilience in Development: Progress and Transformation. In: D. Cicchetti (Ed.), *In Developmental Psychopathology*.
25. Inzlicht M, Werner KM, Briskin JL, Roberts BW (2021) Integrating Models of Self-Regulation. *Annual review of psychology* 72: 319-345.
26. Gross JJ (2015) Emotion Regulation: Current Status and Future Prospects, *Psychological Inquiry* 26(1): 1-26.
27. Institute for Health Metrics and Evaluation (IHME) (2020) *GBD Compare Data Visualization*. Seattle, WA: IHME, University of Washington DC, USA.
28. Thornicroft G, Chatterji S, Evans-Lacko S, Gruber M, Sampson N, et al. (2017) Undertreatment of people with major depressive disorder in 21 countries. *The British journal of psychiatry: the journal of mental science* 210(2): 119-124.
29. Sousa MAA (2013) *Preditores de Recuperação nas Perturbações do Comportamento Alimentar: Estudo Prospectivo de Longa Duração*. [Unpublished master dissertation]. Escola de Psicologia de Braga, Universidade do Minho, Portugal.
30. Friberg O, Martinussen M, Rosenvinge JH (2006) Likert-based versus semantic differential-based scorings of positive psychological constructs: A psychometric comparison of two versions of a scale measuring resilience. *Personality and Individual Differences* 40(5): 873-884.
31. Pereira M, Cardoso M, Alves S, Narciso I, Canavarro MC, et al. (2013) Estudos preliminares das características psicométricas da Escala de Resiliência para Adultos (ERA). In: Pereira A, Calheiros M, Vagos P, Direito I, Monteiro S, Silva CF, Allen Gomes A (Eds.), *Livro de atas do VIII Simpósio Nacional de Investigação em Psicologia, Associação Portuguesa de Psicologia*, pp. 93-103.
32. Pereira M, Cardoso M, Albuquerque S, Janeiro C, Alves S (2016) Escala de Resiliência para Adultos (ERA). In A. P. Relvas & S. Major (Eds.), *Instrumentos de avaliação familiar: Vol. II - Vulnerabilidade, stress e adaptação*, Imprensa da Universidade de Coimbra, pp. 37-62.
33. Beck AT, Beck RW (1972) Screening Depressed Patients in Family Practice - A Rapid Technic. *Postgrad Med* 52(6): 81-85.
34. Beck AT, Rial WY, Rickels K (1974) Short form of Depression Inventory: Cross-validation. *Psychol Rep* 34(3, Pt 2): 1184-1186.
35. Costa PT, McCrae RR (1992) Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI): Professional Manual. Psychological Assessment Resources.
36. Horowitz L, Alden L, Wiggins J, Pincus A (2000) *Inventory of Interpersonal Problems Manual*. The Psychological Corporation.
37. Kiesler DJ (1983) The 1982 Interpersonal Circle: A taxonomy for complementarity in human transactions. *Psychological Review* 90(3): 185-214.
38. Leary TF (1957) *Interpersonal diagnosis of personality: A functional theory and methodology for personality evaluation*. Ronald Press, India.
39. Bartholomew K, Horowitz LM (1991) Attachment styles among young adults: A test of a four-category model. *J Pers Soc Psychol* 61(2): 226-244.
40. Brewer G, Olive N (2014) Depression in men and women: Relative rank, interpersonal dependency, and risk-taking. *Evolutionary Behavioral Sciences* 8(3): 142-147.
41. McFarquhar T, Luyten P, Fonagy P (2018) Changes in interpersonal problems in the psychotherapeutic treatment of depression as measured by the Inventory of Interpersonal Problems: A systematic review and meta-analysis. *Journal of Affective Disorders* 226: 108-123.
42. Woods A, Solomonov N, Liles B, Guillod A, Kales HC, et al. (2021) Perceived Social Support and Interpersonal Functioning as Predictors of Treatment Response Among Depressed Older Adults. *Am J Geriatr Psychiatry* 29(8): 843-852.
43. Gadassi R, Rafaeli E (2015) Interpersonal perception as a mediator of the depression-interpersonal difficulties. *Personality and individual differences* 87: 1-7.
44. Wilson S, Stroud CB, Durbin CE (2017) Interpersonal dysfunction in personality disorders: a meta-analytic review. *Psychol Bull* 143(7): 677-734.
45. Zhou J, Li X, Tian L, Huebner ES (2018) Longitudinal association between low self-esteem and depression in early adolescents: The role of rejection sensitivity and loneliness. *Psychology and Psychotherapy: Theory, Research and Practice* 93(1): 54-71.
46. Wan Mohd Yunus W, Musiat P, Brown J (2019) Evaluating the Feasibility of an Innovative Self-Confidence Webinar Intervention for Depression in the Workplace: A Proof-of-Concept Study. *JMIR Ment Health* 6(4): e11401.
47. Bauer IM, Baumeister RF (2011) Self-regulatory strength. In: Vohs KD, Baumeister RF (Eds.), *In: (2nd edn), Handbook of self-regulation: Research, theory, and applications*. Guilford Press, USA, pp. 64-82.
48. Bandura A (1991) Social cognitive theory of self-regulation. *Organizational behavior and human decision processes* 50(2): 248-287.



This work is licensed under Creative Commons Attribution 4.0 License
DOI: [10.19080/PBSIJ.2022.19.556011](https://doi.org/10.19080/PBSIJ.2022.19.556011)

Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats
(Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>