

**Original Research** 

# **Compassionate Love for a Romantic Partner among Brazilian College Students**

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# Abstract

Compassionate love (CL) is a recent subject of close relationships. CL is focused on enlarging beneficence to another. The present study approaches the test of the psychometric characteristics of the shortened form of the Compassionate Love Scale for a partner (CLS-P-SF) for Brazilian college students and its relationships with background and well-being variables. The sample included 217 young adults, 46.1% women and 53.9% men. Confirmatory factor analysis revealed that the single latent factor of the CLS-P-SF is good and has satisfactory reliability. Subsequent analysis indicated that religious involvement and love status impacted the CLS-P-SF scores. CLS-P-SF scores were significantly related to the measurement of eros and agape love styles, commitment, life satisfaction, love satisfaction, and romantic loneliness. Satisfaction with love life mediated the relationship of CL for a partner and romantic loneliness. Current findings give an insight into the mechanism underlying the relation of CL with romantic loneliness.



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#### Keywords

Brazil; compassionate love; mediation; short form; wellbeing

# 1. Introduction

Compassionate love (CL) is a recent subject of close relationships and has attracted little attention [1, 2]. The current work aims to get a new empirical demonstration of the psychometric characteristics of a recently developed short version measure of CL for a romantic partner (CLS-P-SF) [3] for the Brazilian context and examine the CL's relationships with several backgrounds and related well-being variables.

# 1.1 Compassionate Love

There are several definitions of CL (see [4]), and most of them include the concept of giving of oneself for another's good. For Underwood [5], CL is a form of love focused on another's wellbeing. This theoretical framework has influenced various experts. For example, Sprecher and Fehr [6] defined CL as an "attitude toward other(s), either close others or strangers or all of humanity; containing feelings, cognitions, and behaviors that are focused on caring, concern, tenderness, and an orientation toward supporting, helping, and understanding other(s), particularly when the other(s) is (are) perceived to be suffering or in need" (p. 630).

CL is a construct that contains several feelings, cognitions, and behaviors and can be applied to distinct relations. Even though individuals can feel CL for strangers, they experience it significantly with a romantic partner [7]. It can be compared with other constructs, including empathy, sympathy, and altruism, as it takes into consideration the well-being and emotions of another person. However, CL showed longer-lasting and involved self-sacrifice [6].

Underwood [5] measured CL using two statements included in the Daily Spiritual Experience Scale: "I feel selfless caring for others" and "I accept others even when they do things I think are wrong." Sprecher and Fehr [6] developed the Compassionate Love Scale (CLS) to evaluate people's dispositional tendency to experience CL. This 21-item self-report tool has three forms: close others, a specific close other, and strangers or all of humanity. Factor analysis revealed a one-factor structure for each one of the three forms of this instrument. The CLS showed high Cronbach's  $\alpha$  (>0.90) and convergent validity. The validity of this instrument has been evidenced in several studies (e.g., [8]).

The Portuguese versions of the CL for Close Others and Strangers Scales showed reliable and valid results [9]. The CLS for romantic partners also demonstrated adequate psychometric characteristics for Portuguese college students [10]. The adaptation of the CLS for romantic partners showed one-factor solution, satisfactory reliability, and validity in Portugal.

Neto and Neto [3] developed an abbreviated version to evaluate CL for a romantic partner (CLS-P-SF). The CLS-P-SF consists of 5 statements. Globally, results evidenced that the CLS-P-SF had good reliability and convergent, discriminant, and incremental validities in a Portuguese population. Recently, research demonstrated the invariance of the CLS-P-SF across gender and age [11].

# 1.2 The Present Study

This study has two aims. The first aim was to get a new empirical demonstration of the psychometric features of the CLS-P-SF for a Brazilian population, examining factorial structure and reliability. To test this, several analyses were carried out. To scrutinize the factorial structure, confirmatory factor analysis (CFA) was conducted. We expected that the CLS-P-SF would confirm the one-factor structure, which is in line with the original study [3]. The reliability was measured using Cronbach  $\alpha$  and composite reliability (CR). We expected to find high reliability of the CLS-P-SF, which agrees with the original study [3].

The second aim was to scrutinize the relations of the CL with background variables (gender, religious involvement, and love status) and theoretically related well-being constructs, such as Eros and Agape love styles, commitment, satisfaction with life (SWL), satisfaction with love life (SWLL), and romantic loneliness.

Among the background variables, we examined the relations between CL for a romantic partner and gender, religious involvement, and love status. Relative to gender differences in CL, when the measurement concerns close others or strangers, females generally report more excellent scores than males [12]. This finding is consistent with the thought that women tend to be nurturers [13]. Despite this, concerning the CL for a romantic partner, gender differences are often not evidenced [8, 11, 14].

CL is a core aspect of religion [5, 15, 16]. Religion is relevant in the lives of most Brazilians. Christianity still dominates Brazil's social environment, but in recent decades, greater diversification and a decrease in religious practices have been evident, especially in cities [17]. Higher CL is related to more spiritual experiences [5]. Sprecher and Fehr [6] found that more religious individuals reported more CL than less religious ones. Similarly, believers felt more CL than nonbelievers [18].

"Falling in love is a selective response to a unique other person with an orientation to the whole person" ([19], p. 164). Being in love can change one's perspective. Past investigations found that individuals in love experienced higher CL [3].

Eros (passionate, romantic love) and Agape (selfless love) are two love styles initially identified by Lee [20]. Eros desires "an intense, exclusive focus on the partner but not possessiveness or jealousy" ([21], p. 65). Agape is "an ethereal, altruistic love that takes no thought of the self but only of the beloved other" ([22], p. 144). Selflessness characterizes Agape and CL. For Agape and CL partners, well-being is more important than one's well-being. Both love styles appeared significantly associated with CL [8, 18].

CL expands marital stability [23]. The commitment is a critical element of relation quality [24]. It is linked to a partner's well-being [25]. Research has pointed out a link between CL for one's dating partner and commitment [3, 8].

SWL represents a cognitive assessment of one's well-being either globally or regarding particular life domains grounded on criteria selected by the individual [26, 27]. In this study, we consider overall satisfaction and one particular life domain, namely SWLL [28], which is a relevant component of well-being for many people [27]. Prior investigation showed that SWL was linked to CL [18].

Berscheid [29] argued that CL plays a relevant role in the prediction of relationship satisfaction. "There is growing empirical support that loving one's partner compassionately is predictive of relationship quality" ([8], p. 589). Indeed, there is evidence that individuals who extend CL to their partners are more satisfied with their relationships. Reis, Maniaci, and Rogge [2] found that CL acts impacted both partners' marital satisfaction. Sabey and colleagues [14] also showed that CL predicted marital satisfaction. Previous research showed that SWLL was related to CL [3, 30].

Loneliness is "the cognitive awareness of a deficiency in one's social and personal relationships and ensuing affective reactions of sadness, emptiness or longing" ([31], p. 75). It is related to lower SWL [32-34] and SWLL [28]. DiTommaso and colleagues [35] distinguished between social loneliness, family loneliness, and romantic loneliness. Romantic involvement is related to lower romantic loneliness. Love life satisfaction is negatively linked to romantic loneliness [30].

Along this line we examined whether the relationship between CL and romantic loneliness would be mediated by satisfaction with love life. This set of psychosocial variables was chosen as they are relevant for well-being. There is a research gap in the domain of CL in that works have mainly examined the direct impacts of various predictors and disregarded indirect processes underlying the relations between factors [14, 36].

This work seeks to clarify the relationships between CL and romantic loneliness by testing the potential mediating effect of love-life satisfaction. Previous investigations supported the assumption that CL is an antecedent of romantic loneliness [3]. This study may give new insights into existing research and provide empirical support that will likely be utilized to enhance relationship quality.

Considering the literature above, we advance the following hypotheses:

H<sub>1</sub>: We expect that the CLS-P-SF will present satisfactory psychometric properties among Brazilian college students.

H<sub>2</sub>: It is expected that gender will not affect compassionate love for a partner, but religious involvement and love status will affect CL.

H<sub>3</sub>: We expected CL to be positively related to Eros and Agape.

H<sub>4</sub>: We hypothesized CL positively related to commitment and life satisfaction.

 $H_5$ : We hypothesized CL to be negatively related to romantic loneliness.

H<sub>6</sub>: We expected that satisfaction with love life would mediate the relationship of CL with romantic loneliness.

# 2. Method

#### 2.1 Participants

The sample size was determined following the suggestions of Muthen and Muthen [37], in which a minimum of 150 participants are required per group for simple one-dimensional models. Therefore, the sample included 217 international students from Brazil, 46.1% women and 53.9% men. Ages ranged between 18 and 34 years (M = 23.88, SD = 3.96). Sixty-seven percent were single, and 33 percent were married or cohabiting. Regarding religious involvement 51% reported to be church attendees, 35% were believers-non attendees, 13% were nonbelievers, and 1% did not answer. Sixty-three percent of the respondents indicated as being "in love now." At the time of the survey, all the sample was involved in a romantic relationship and self-reported their nationality as Brazilian.

All procedures performed in studies involving human participants were by the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

# 2.2 Materials

The survey consisted of the materials indicated below and demographics concerning age, gender, marital status, religious involvement, and love status.

(a) Short Form Compassionate Love for Partner (CLS-P-SF; [3]). This measure consists of 5 statements (e. g., "I spent a lot of time concerned about the well-being of \_\_\_\_ [the partner]." Ratings ranged from 1 ("not at all true") to 7 ("very true").

(b) *Eros and Agape love styles*. These were each measured with 7 statements [33, 38, 39]. Items examples are: "My lover and I have the right physical "chemistry" between us" (Eros); and "I am usually willing to sacrifice my own wishes to let my lover achieve his/hers" (Agape). Ratings ranged from 1 *("strongly disagree")* to 5 (*"strongly agree"*). More excellent scores signify higher love styles. In this sample,  $\alpha$  were 0.78 for Eros, and 0.81 for Agape.

(c) *Commitment*. This measure has four items [30, 40] (e. g., "How committed are you to your partner?"). Ratings ranged from 1 (*"extremely uncommitted"*) to 9 (*"extremely committed"*). Higher values signify higher commitment. In this sample,  $\alpha$  was 0.84.

(d) Satisfaction with Life Scale. This instrument includes 5 statements [26] (e.g., "I am satisfied with my life"). Ratings ranged from 1 ("strongly disagree") to 7 ("strongly agree"). Higher values signify higher SWL. The Portuguese form of this instrument showed adequate psychometric properties [33, 41, 42]. For this study,  $\alpha$  was 0.88.

(e) The Satisfaction with Love Life Scale. This measure [28] includes 5 statements (e. g., "I am satisfied with my love life"). Ratings ranged from 1 ("strongly disagree") to 7 ("strongly agree"). Higher values signify greater SWLL. Neto and Dimitrova [43] showed that this scale is appropriate for utilization in cross-cultural surveys. In this sample,  $\alpha$  was 0.92.

(f) *Romantic loneliness*. Five items were used to evaluate romantic loneliness [35, 44] (e. g., "I have a romantic partner to whose happiness I contribute"). Response options ranged from 1 ("*strongly disagree*") to 7 ("*strongly agree*"). In this study,  $\alpha$  was 0.81.

# 2.3 Procedure

A convenience sample of Brazilian college students in Porto was recruited by a trained research assistant in 2019. The eligibility criteria for inclusion in this research were  $\geq$ 18 years of age, international students, and Brazilian nationality. Snowball sampling utilizing personal contacts and community groups was used. The questionnaire was administered to the participants utilizing a standard paper and pencil format. The research was carried out by the Declaration of Helsinki and the country's ethical norms. Before responding to the survey, students were informed that participation was voluntary, anonymous, and confidential. Informed consent was provided. Information was also provided to the participants, stating they could stop responding to the questionnaire without explanation. Participants were not reimbursed.

# 3. Results

# 3.1 Descriptive Statistics of the Items

Table 1 shows the descriptive characteristics of the five items of the CLS-P-SF. Skewness and kurtosis coefficients were between -2 and +2, indicating that the univariate normality is met.

Mardia's Multivariate Kurtosis was 25.05 (p < 0.001). There was, therefore, no substantial deviation from normality [45].

Item	М	SD	Min	Max	Skewness Statistic	Kurtosis Statistic					
1	5.11	1.61	1	7	-0.76	-0.04					
2	5.75	1.46	1	7	-1.44	1.85					
3	5.96	1.33	1	7	-1.49	1.93					
4	5.25	1.71	1	7	-0.95	0.10					
5	5.85	1.42	1	7	-1.26	1.01					
Note N = 217											

**Table 1** Descriptive statistics of the Compassionate Love for a Partner Scale Short Form.

#### 3.2 Confirmatory Factor Analysis

A CFA was conducted on the raw data of the CLS-P-SF (correlation matrix, maximum likelihood estimation). The model examined was the one-dimensional solution found in previous research [3]. No correlation between error terms was allowed. The model of a single latent factor of the CLS-P-SF fit the data well:  $\chi^2 = 11.30$ , df = 5,  $\chi^2$ /df = 2.26, CFI = 0.98, GFI = 0.98, SRMR = 0.03, RMSEA = 0.07 [%90 CI: 0.01 - 0.13] [46]. All factor standardized loadings ( $\lambda$ ) of the statements were significant at *p* < 0.001 and ranged between 0.64 and 0.82, with a mean of 0.71 (Figure 1).



Figure 1 Confirmatory factor analysis of one-factor model of the CLS-P-SF.

#### 3.3 Reliability and Convergent Validity

The reliability of the CLS-P-SF was high: the Cronbach's  $\alpha$  coefficient was 0.83, and the CR value was 0.89. We calculated the AVE for the CLS-P-SF (AVE = 0.63). This result indicated good convergent validity evidence for the CLS-P-SF [47]. In sum, current findings, in line with hypothesis 1, showed that the CLS-P-SF supported appropriate psychometric characteristics among Brazilian college students.

#### 3.4 Background Variables

The mean value for the CLS-P-SF was 5.58, indicating that CL for this sample was significantly higher (p < 0.001) than the neutral mid-point of the scale. Therefore, Brazilian college students experienced relatively high CL values for their partners.

# 3.4.1 Gender

Men (M = 5.49, SD = 1.21) and women (M = 5.69, SD = 1.09) did no differ significantly on CL, [F(1, 216) = 1.66, p = 0.20,  $\eta^2 = 0.008$ )].

# 3.4.2 Religious Involvement

The effect of religious involvement in CL was significant [F(2, 215) = 5.71, p < 0.01,  $\eta^2 = 0.051$ )]. A Scheffé test showed that the believers/regular attendees (n = 112, M = 5.78, SD = 0.93) scored greater than the nonbelievers (n = 28, M = 5.01, SD = 1.63) on CL. However, there were no significant differences between the believers/non-attendees (n = 75, M = 5.48, SD = 1.20) and the two other groups on CL.

# 3.4.3 Currently in Love

The effect of love status in CL was significant  $[F(1, 215) = 16.08, p < 0.001, \eta^2 = 0.070]$ . Respondents "in love now" reported higher CL (n = 137, M = 5.81, SD = 1.10) than those "not in love now" (n = 79, M = 5.17, SD = 1.15). The relation between background variables and CL supported our second hypothesis.

# 3.5 Correlations with Other Measures

The CLS-P-SF scores were related to other factors, as expected. The CLS-P-SF scores correlated significantly and positively with the two love styles considered. The higher the reported erotic love style and agape love style were, the higher the CL felt (Table 2). These findings supported our third hypothesis.

**Table 2** Descriptive statistics and correlations between compassionate love for apartner scale scores and other measures.

	Μ	SD	1	2	3	4	5	6
1. Compassionate love	5.58	1.16						
2. Eros love style	3.70	0.81	0.38*					
3. Agape love style	3.36	0.91	0.41*	0.38*				
4. Commitment	6.12	2.27	0.48*	0.45*	0.33*			
5. Satisfaction with life	4.51	1.44	0.40*	0.34*	0.25*	0.44*		
6. Satisfaction with love life	4.51	1.66	0.41*	0.45*	0.34*	0.57*	0.54	
7. Romantic loneliness	3.49	1.69	-0.33*	-0.41*	-0.30*	-0.56*	-0.40*	-0.58*

Significant relations were also detected with CL regarding commitment and satisfaction with life. CL correlated positively with commitment and life satisfaction. The higher the reported commitment and life satisfaction were, the higher the CL felt. These findings supported our fourth hypothesis.

#### 3.6 Mediating Effect Test

Path analysis was used to examine the mediation effects of satisfaction with love life on the relationship between CL for a romantic partner and romantic loneliness. Descriptive statistics and regression analysis results indicated no severe violations of normality and linearity assumptions (e.g., skewness from -1.07 to 0.22, kurtosis from -0.92 to 1.36, the variance inflation factor values were all below 10, and the tolerance statistics above 0.20). These data checks provide support for reliance on path analysis. All pairwise correlations were significant. In particular, CL was negatively related to romantic loneliness (r = -0.33, p < 0.001, 95% [CI] = [-0.46, -0.21]), supporting our fifth hypothesis.

The results of regression analyses examining the mediation effect of SWLL on the relation between CL and romantic loneliness are presented in Figure 2. Results showed that CL was indirectly related to romantic loneliness through its relationship with SWLL. CL predicted significant SWLL, b = 0.41, p < 0.001, as well as SWLL predicted significant romantic loneliness, b = -0.52, p < 0.001. These findings support a mediational hypothesis. CL for a partner did not predict significant romantic loneliness after controlling for the mediator, satisfaction with love life, b = -0.10, p = 0.10, consonant with full mediation. The independent variables accounted for about 35% of the variance in romantic loneliness. The indirect effect was analyzed through a percentile bootstrap estimation approach with 1000 samples, established with IBM SPSS Amos. The results indicated that the indirect coefficient was significant, b = -0.21, 90% CI = -0.28, -0.16; thus, hypothesis 6 was supported.



Figure 2 The pattern of the hypothesized mediation analysis.

#### 4. Discussion

This study tested the psychometric characteristics of the shortened version of the CLS for a romantic partner among Brazilian college students and its relationships with other background and related well-being variables. We found support for the six hypotheses tested in the study.

Findings demonstrated construct validity, reliability, and convergent validity of the CLS-P-SF. Internal consistency and validity indices were consistent with satisfactory measurement standards. The CFA demonstrated the one-dimensional model for this version of CL. The internal consistency of the CLS-P-SF, calculated by the CR and the  $\alpha$  values, was high. Estimates of CR and  $\alpha$  higher than 0.70 suggest good reliability [45]. Convergent validity of the CLS-P-SF was also evidenced, as AVE was greater than 0.50 [47]. These results support the recourse to the CLS-P-SF with Brazilians and are in line with our first hypothesis.

Our second hypothesis tested the effects of background variables on CL. We predicted that gender would not affect CL. This was the case in the current work. Females' and males' scores of CL did not differ significantly. This finding is consonant with previous investigations [8, 18].

"It is a central part of Christianity and of other religions to care for the poor, the weak, the sick, and the outcasts of society, to show love, charity and compassion to them" ([48], p. 194). Religious involvement, as expected, did report a positive impact on CL for a romantic partner. Believers/regular attendees presented higher CL than non-believers. This result is in line with prior studies [3, 6, 16, 18].

"Falling in love with someone can reflect hormonal flux and physical attraction that can lead to the giving of self for the good of the others" ([49], p. 5). The current study pointed out that love status impacted CL, as people in love revealed higher CL than those not. Consistent with previous investigations, love status affects compassionate love [18], suggesting that lovers wear rosecolored glasses [19]. Hence, the second hypothesis was supported as love status and religious involvement affected CL.

Furthermore, significant associations of CLS-P-SF scores with measures of the intimate relationships field (eros, agape, commitment) were found. As predicted, results showed that higher CL for a partner was associated with higher erotic and agape love styles and commitment. Current results agree with research that evidenced a relationship between CL and the quality of relations [8]. In addition, compassionate love correlated positively and significantly with life satisfaction, suggesting that more excellent CL was related to higher life satisfaction. This result agrees with prior work showing that high CL is linked to greater happiness [50]. Therefore, current findings support  $H_3$  and  $H_4$ .

In this study, we considered the association between CL and romantic loneliness and the mediating role of SWLL. Before looking into the mediation model, the results indicated that CL, romantic loneliness, and SWLL were all significantly associated. Regression analysis results displayed the significant impact of CL on romantic loneliness. As expected, higher CL significantly predicted lower romantic loneliness. This is consonant with prior work revealing that higher CL was related to diminished romantic loneliness [3]. Additionally, the results of the path analysis showed that CL affected romantic loneliness indirectly via satisfaction with love life. It can be assumed that CL indirectly influences romantic loneliness via the mediating effect of SWLL. These results support our sixth hypothesis. Thus, one reason why persons who are high in CL for a romantic partner express less romantic loneliness is that they are more likely to experience high satisfaction with love life.

Overall, the current findings give insight into the mechanism underlying the relationship between CL and romantic loneliness. Brazilian college students experiencing more CL tended to feel more satisfaction with their love life and, in turn, felt less romantic loneliness. Moreover, this research contributes to the intimate relationships field by demonstrating the key role of love satisfaction to explain the relationship between CL and romantic loneliness, which indicates that targeting interventions to improve love satisfaction may provide support to reduce the lovers' loneliness.

This research has various limitations that indicate directions for future investigation. First, the current work was limited to a convenience population of college students, which might restrict the generalizability of the present results. Future research should consider people of distinct age groups and other demographic variables (e.g., education level, socio-economic status). Second, the design of this work was cross-sectional, and we cannot make inferences of causality. Subsequent longitudinal research should examine causal relationships. Third, we have used self-report measures, which may generate socially desirable responses. Future research should examine the social desirability [51].

#### 5. Conclusion

Notwithstanding these limitations, this research is the first to present a brief, valid, and reliable tool to assess compassionate love for a romantic partner in a Brazilian population. The CLS-P-SF presents an adequate one-dimensional model, internal consistency, and empirical relationships with other theoretically related measures on intimate relationships. Further research should include measures expected to be related to CL, such as the measurement of prosocial behaviors. Additionally, for practical purposes, the short five-item format of the CLS-P-SF is beneficial for people with minimal cost and time. The CLS-P-SF's brevity and ease of administration make it a promising tool for extensive surveys and cross-national research. Therefore, researchers and practitioners can benefit from using the shortened and empirically sound CLS-P-SF to evaluate compassionate love for a romantic partner, contributing to the growth of the investigation of this construct.

#### Abbreviations

AVE = Average variance extracted CFA = Confirmatory factor analysis CFI = Comparative fit index CL = Compassionate love CLS = Compassionate Love Scale CLS-P-SF = Short Form Compassionate Love for Partner CR = Composite reliability GFI = Goodness of fit index RMSEA = Root mean square error of approximation SRMR = Standardized root mean square residual SWL = Satisfaction with life SWLL = Satisfaction with love life

# **Author Contributions**

The authors contributed equally to the study conception, design, and analysis. The authors read and approved the final manuscript.

# **Competing Interests**

The authors declare that they have no conflict of interest.

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