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SELF-COMPASSION AS A MODERATING VARIABLE BETWEEN ATTACHMENT, EMOTIONAL DEPENDENCE, STRESS, ANXIETY, AND DEPRESSION IN SPANISH ADOLESCENTS

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Abstract

Attachment is a critical element of the origin of emotional dependence, and one of the most studied consequences of emotional dependence is its role in the development of anxious-depressive symptomatology. Self-compassion has been shown to be a protective factor against anxiety and depression, but no studies have been found that relate it to emotional dependence. Therefore, the three objectives of the present study were to analyse the relationship between these variables; to study whether sociodemographic variables influence these variables; to test whether emotional dependence mediates the relationship between attachment and dysfunctional psychological symptomatology; and to determine whether these relationships are moderated by self-compassion. The sample consisted of 940 adolescents (55.7% female and 44.3% male) from Spain. Emotional dependence was found to mediate the relationship between attachment and dysfunctional psychological symptomatology, and these relationships were moderated by self-compassion. Self-compassion is recognised as having a protective effect on levels of emotional dependence, stress, anxiety and depression.

KEY WORDS: *self-compassion, emotional dependence, attachment, anxiety, depression, stress.*

Resumen

El apego es un elemento crítico del origen de la dependencia emocional, y una de sus consecuencias más estudiadas es el desarrollo de la sintomatología ansioso-depresiva. La autocompasión ha demostrado ser un factor protector frente a la ansiedad y la depresión, pero no se han encontrado estudios que la relacionen con la dependencia emocional. Por ello, los tres objetivos del presente estudio fueron analizar la relación entre estas variables; estudiar si las variables sociodemográficas influyen en estas variables; comprobar si la dependencia emocional media la relación entre el apego y la sintomatología psicológica disfuncional; y determinar si estas relaciones están moderadas por la autocompasión. La muestra consistió en 940 adolescentes (55,7% mujeres y 44,3% hombres) de España. Se observó que la dependencia emocional mediaba la relación entre el apego y la sintomatología psicológica disfuncional, y que estas

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relaciones estaban moderadas por la autocompasión. Se reconoce que la autocompasión tiene un efecto protector sobre los niveles de dependencia emocional, estrés, ansiedad y depresión.
PALABRAS CLAVE: *autocompasión, dependencia emocional, apego, ansiedad, depresión, estrés.*

Introduction

Attachment is the emotional bond formed through early experiences that humans have with their primary caregiving figures, usually their parents (Bowlby, 1982). Affectively deprived parenting may lead individuals to seek the sense of protection and security they crave, becoming entangled in dependent relationships (Rusby et al., 2013). This is why the relationships with attachment figures are considered to be a crucial element in the formation of emotional dependence (Momeñe & Estévez, 2018).

Emotional dependence is a kind of sentimental dependence, described as a chronic pattern of unsatisfied affective demands the person attempts to satisfy maladaptively through interpersonal relationships (Urbiola et al., 2017). Emotionally dependent people prioritise the other person, assuming submissive behaviours (Momeñe and Estévez, 2018) due to their fear of abandonment or rejection and the entailing loneliness. Therefore, they idealise the other person and present low self-esteem and an extreme need to please others (Castelló, 2012). Ultimately, they develop unbalanced relationships (Castelló, 2012), showing an inability to leave the relationship or imagine their existence without the other person, performing countless acts to prevent the relationship from ending (Izquierdo Martínez & Gómez-Acosta, 2013). This occurs despite their dissatisfaction with the relationship (Skvortsova & Shumskiy, 2014), as their only motivation is to feel accompanied (Janin, 2011). This can lead them to sacrifice their desires and needs (Urbiola et al., 2014) to the extent that they feel they have lost their identity (Schaeffer, 1998).

Bornstein et al. (2003) categorise the levels of emotional dependence in interpersonal relationships as follows: 1) Destructive overdependence is characterised by high levels of dependence and fear of abandonment. It refers to high levels of emotional dependence. 2) Healthy dependence is characterised by experiencing well-being in intimate situations but functioning autonomously and seeking help and support appropriately when needed. It refers to appropriate and balanced levels of emotional dependence. 3) Dysfunctional detachment is characterised by a need to maintain emotional distance from others as harmful and an excessive search for autonomy. It refers to excessively low levels of emotional dependence, which some authors call emotional counter-dependence, defining it as a promotion of independence that seeks to do without others in an unhealthy way (Soenens et al., 2007). Therefore, there are two types of unhealthy emotional dependence, one due to excess and the other due to deficit, with a healthy dependence at an intermediate point between the two.

One of the possible consequences of high emotional dependence is anxious and depressive symptomatology (Urbiola et al., 2017). Huprich (2003), among others, pointed out that an excess of dependence could be a determining factor in developing depressive symptomatology, as depressed patients' narratives frequently present a feeling of heightened loneliness. Moreover, for the emotionally dependent person, the trauma of relationship breakdown is devastating and often the precipitating event for depressive symptoms such as feelings of rejection, denial and abandonment. Such feelings can lead to self-harm attempts and completed suicides (Lemos et al., 2007). On the other hand, people with emotional dependence may also exhibit symptoms of anxiety, feelings of helplessness, emotional emptiness and chronic dissatisfaction (Hirigoyen, 2013). To the authors' knowledge, no studies have been found that directly relate emotional dependence to stress. However, it is consistent to expect that there will be some kind of relationship between these variables knowing that stress, anxiety and depressive disorders are closely related to each other, appearing simultaneously or following each other (Chojnowska et al., 2021), and it has been shown that anxiety and depression do relate to emotional dependence.

One of the psychological strengths linked to psychological well-being is self-compassion, that is, treating oneself kindly in contexts of adversity (Méndez et al., 2021). According to Neff (2003), self-compassion is composed of three elements: 1) "extending kindness and understanding to oneself rather than harsh self-criticism and judgment; 2) seeing one's experiences as part of the larger human experience rather than as separating and isolating; and 3) holding one's painful thoughts and feelings in balanced awareness rather than over-identifying with them" (p. 224). Several meta-analyses show that higher self-compassion is associated with lower anxiety and depression in young people who recognise the need for treatments that include this variable (Egan et al., 2022). Self-compassion has also been found to play a moderating role in the relationship between affect and depression (Kotsou & Leys, 2016). Attachment styles are also related to self-compassion (Song et al., 2023). When, in early childhood, children have their needs met through their primary caregivers (establishing secure attachment), their capacity for self-concern and self-compassion may be enhanced (Mikulincer and Shaver, 2007). Conversely, if their needs are ignored or rejected (establishing an insecure attachment), they may generate a negative self-perception (Bartholomew & Horowitz 1991) which decreases self-compassion (Gilbert, 2009). Moreover, self-compassion mediates the relationship between attachment and anxiety (Brophy et al., 2020).

In terms of socio-demographic differences in these variables, problems such as emotional dependence (Martín & de la Villa Moral, 2019), stress, depression and anxiety are already present from adolescence, and the last three being more common in women (Global Burden of Disease Study, 2020). In contrast, higher levels of self-compassion have been found in men than in women (Yarnell et al., 2019). Regarding the prevalence of emotional dependence in adolescents, results have been found to point in both directions. Studies such as that of Etxaburu et al. (2023) found a higher prevalence in males, while others found a higher prevalence in females (González-Bueso et al., 2018). In terms of age differences, attachment

remains stable across the lifespan (Thompson et al., 2022). The same is true for anxious symptomatology, which tends to remain relatively stable, with the main difference between age groups being the causes of worry (American Psychiatric Association Publishing [APA], 2022). In contrast, there are differences in depression (APA, 2022) and emotional dependence, which seem to be more prevalent in young people than in adults (Lemos & Londoño 2006). Conversely, self-compassion seems to be higher in adults than in young people (Murn & Steele, 2020). Finally, due to the fear of loneliness, people with emotional dependence will tend to have more relationships or stay longer in them (Castelló, 2012). The same occurs with people with anxious attachment (Rollè et al., 2022), and the opposite with people with avoidant attachment who will avoid establishing intimate partner relationships (Sagone et al., 2023).

To the authors' knowledge, no studies have been found that relate self-compassion with emotional dependence. Consequently, this study aims to analyse the relationship between self-compassion, emotional dependence, attachment and dysfunctional psychological symptomatology; to analyse whether there are differences in the variables depending on demographic characteristics such as age, sex and/or having had a relationship; and to test whether the model proposed in the following paragraph is fulfilled.

In line with the literature review, we expect to find the following: 1) self-compassion is expected to correlated negatively with unhealthy emotional dependence and anxious-depressive symptomatology, unhealthy emotional dependence is expected to correlate negatively with secure attachment, secure attachment is expected to correlate negatively with anxious-depressive symptomatology, and unhealthy emotional dependence is expected to correlate positively with anxious-depressive symptomatology. 2) We expect differences in all variables depending on age, sex and having (or not having) had a partner. 3) We will test the relational model proposed: emotional dependence mediates the relationship between attachment and dysfunctional psychological symptomatology, while self-compassion moderates each of these relationships (between attachment and emotional dependence, between attachment and dysfunctional psychological symptomatology, and between emotional dependence and dysfunctional psychological symptomatology) (see Appendix).

Method

Participants

The sample consisted of 940 Spanish high school students aged 13-18 years, whose average age was 15.43 (*SD*= 1.17). Approximately half of the sample was female (55.7%). Concerning having a partner, 39.4% stated they had had a partner for more than a month.

Instruments

a) *Inventory of Parent and Peer Attachment* (IPPA; Armsden & Greenberg, 1989). The Spanish version of Delgado et al. (2016) was used. This instrument was developed to assess adolescents' perceptions of the positive and negative affective/cognitive dimensions of relationships with their parents and close friends particularly, the extent to which these figures serve as sources of psychological security. It has 75 items, with 25 items for each attachment figure: father, mother and peers. In addition, it has three subscales for each of the attachment concepts: 1) Trust, referring to the degree of mutual understanding, respect and confidence; 2) Communication, referring to its perceived quality; and 3) Alienation, referring to the degree of anger and isolation. The items of this instrument are rated on a five-point Likert scale ranging from 1 (*never or almost never true*) to 5 (*always or almost always true*). Cronbach's alpha for this study was .92 for attachment to mother, .93 for attachment to father and .91 for attachment to peers.
b) *Relational Profile Test* (RPT; Bornstein et al., 2003). The Spanish version of Abuín et al. (2007) was used. This scale comprises 30 items and is divided into three subscales that describe the pattern of interpersonal dependence: 1) Destructive overdependence (DO), which assesses maladaptive and rigid emotional and interpersonal dependence. It is associated with a fragile and helpless self-perception with a compelling need to establish and maintain attachments. It is also characterised by a strong fear of abandonment and negative evaluations. 2) Healthy Dependence (HD), assesses flexible and adaptive emotional and interpersonal dependence. It implies a competent self-perception and a need for healthy bonds of closeness, experiencing well-being in situations of intimacy. These individuals function autonomously, seeking help and support appropriately when needed. 3) Dysfunctional Detachment (DD) assesses a rigid and maladaptive form of detachment. It is related to an excessive and artificial autonomous self-perception, and a tendency to perceive others as harmful or untrustworthy. Such people need to maintain distance from others for fear of being harmed or overwhelmed. Each item is rated on a 5-point Likert scale ranging from 1 (*not at all true of me*) to 5 (*very true of me*). Cronbach's alpha for this study was .75 for Destructive Overdependence, .73 for Dysfunctional Detachment and .69 for Healthy Dependence.
c) *Abbreviated Depression, Anxiety and Stress Scales* (DASS-21; Antony et al., 1998). The Spanish version of Ruiz et al. (2017) was used. This scale contains 21 items in which respondents are asked to evaluate their experiences during the last week. It is divided into three subscales: 1) Depression, which contains questions on dysphoria, hopelessness, devaluation of life, lack of interest/involvement, anhedonia and inertia; 2) Anxiety, which has items related to autonomic arousal, musculoskeletal effects; 3) Stress, which consists of questions on difficulty relaxing, nervous excitement, ease of becoming upset/agitated, quick to become irritated/overreacting, and impatience. Each subscale includes seven items rated on a four-point Likert scale ranging from 0

(*has not happened to me*) to 3 (*has happened to me a lot, or most of the time*). Cronbach's alpha for this study was .82 for Stress, .86 for Anxiety and .89 for Depression.

d) *Self-Compassion Scale-Short Form* (SCS-SF; Raes et al., 2011). The Spanish version of Garcia-Campayo et al. (2014) was used. This scale represents the thoughts, emotions and behaviours associated with the various components of self-compassion. The instrument consists of 12 items. Although at a theoretical level it assesses the three facets of self-compassion (self-kindness, common humanity and mindfulness), the scale has six subscales representing the positive and negative aspect of these three facets: 1) Self-kindness (e.g., "When I am having a really bad time, I give myself the care and affection I need") versus Self-judgment (e.g., "When I see aspects of myself that I don't like, I criticise myself); 2) Common humanity (e.g., "When I am discouraged and sad, I remember that there are many people around me who feel like me") versus Isolation ("When I am faced with a difficulty, I tend to think that other people have it easier"); and 3) Mindfulness (e.g. "When something painful happens to me, I try to keep a balanced view of the situation") versus Over-identification (e.g. "When something bothers me, I feel that my emotions are getting the better of me"). It is rated on a 5-point Likert scale, ranging from 1 (*Never*) to 5 (*Always*). Cronbach's alpha for this study was .79.

Procedure

Firstly, consent was received from the ethics committee of the correspondence author's university. Before starting the study, informed consent was requested from the parents and/or guardians of the adolescents who completed the questionnaires. They were also informed about the rules for completing the questionnaires, the duration and aspects to be measured, the voluntary nature of the study, the confidentiality and anonymity of the data obtained, and the contact details of the reference researcher. The data were collected in the classroom using the students' electronic devices. While administering the questionnaires, the researcher remained in the classroom until the students finished and submitted their answers. At the end of the sample collection, the general data of the school was delivered. This study was conducted following the criteria of the Declaration of Helsinki (World Medical Association, 2013).

Data analysis

First, the descriptive statistics and correlations between the study variables were calculated using SPSS 27.0. Second and before computing the proposed model, the relationship of the dependent variables (i.e., emotional dependence and mental health) with the sociodemographic variables (i.e., age, sex and previous partner) was examined to determine which sociodemographic variables to include as controls when testing the model. For this purpose, the correlations of age with emotional dependence and mental health indicators were examined. The

relationships of sex and previous partner with emotional dependence and mental health were examined with Student t-tests for independent samples.

Third, the hypothesised model was tested with path analysis using maximum likelihood estimation in Mplus 8.0. The relationships were modelled as displayed in Appendix. Stress, anxiety and depression were modelled as final dependent variables; destructive overdependence and dysfunctional detachment as mediators; and mother, father and peer attachment as independent variables. In all paths, self-compassion was included as a moderator. To control for potential confounding effects, age, sex and previous partner were included as covariates in those regressions in which these variables showed significant relationships with the dependent variable in the results of the previous analytical step.

The indexes used to examine the model fit to the data were the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean squared error of approximation (RMSEA) and the standardised root mean square residual (SRMR). Following Hu and Bentler's (1999) indications, values of CFI and TLI close to .95, values of RMSEA close to .06, and SRMR values close to .08 were considered indicators of good fit.

The examination of mediations and moderations (i.e., simple slopes, indirect effects and moderated indirect effects) was carried on following the code provided by Stride (2023) based on Hayes's (2017) models. For moderations and moderated mediations, simple slopes were calculated at low (-1SD), medium (mean) and high (+1SD) levels of the moderator, self-compassion. For the computation of indirect effects and moderated indirect effects, 5,000 bootstrap samples and 95% confidence intervals were computed to reduce estimation bias (Hayes, 2017).

Results

First, the descriptive statistics and correlations between the study variables were calculated (Table 1). All the correlations between the study variables were significant.

Second, to determine which socio-demographic variables should be included as controls, the correlations between age and variables were examined (see Table 1). Student *t*-tests were also performed (Table 2) to analyse the differences between sex and previous partner with emotional dependence and dysfunctional psychological symptomatology.

Third, the hypothesised model (see Appendix) was tested, including the significant relationships with the sociodemographic variables as controls. The results of the path analysis indicated that the model had an adequate fit to the data (χ^2[14]= 35.84, p= .001; χ^2/df= 2.56; CFI= .994; TLI= .957; RMSEA= .051, 95% CI [.024, .057], p= .806; SRMR= .011). This model explained 20.6% of the variance of destructive overdependence, 21.5% of dysfunctional detachment, and 33.4% of healthy dependence. Regarding the final dependent variables, the model explained 38.1% of the variance of stress, 38.3% of the variance of anxiety and 45.1% of the variance of depression.

Table 1
Descriptive statistics and correlations between the study variables (*n*= 940)

Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1. Age	15.43	1.17										
2. Self-compassion	35.25	8.21	.01									
Emotional dependence												
3. Destructive overdependence	28.63	6.73	> -.01	-.41***								
4. Dysfunctional detachment	32.23	6.53	.09**	-.34***	.35***							
5. Healthy dependency	31.64	6.03	.13***	.44***	-.16***	-.28***						
Attachment												
6. Mother attachment	94.74	17.48	-.05	.33***	-.17***	-.29***	.31***					
7. Father attachment	90.89	19.05	-.05	.28***	-.16***	-.24***	.28***	.51***				
8. Peer attachment	98.38	15.07	.08*	.24***	-.18***	-.20***	.41***	.29***	.21***			
Dysfunctional psychological symptomatology												
9. Stress	9.23	5.16	.10**	-.44***	.38***	.46***	-.24***	-.32***	-.28***	-.17***		
10. Anxiety	7.00	5.48	.01	-.47***	.40***	.38***	-.28***	-.30***	-.28***	-.20***	.78***	
11. Depression	7.41	5.79	.02	-.54***	.43***	.43***	-.34***	-.36***	-.34***	-.26***	.74***	.76***

Note: *p< .05; **p< .01; ***p< .001.

Table 2
Differences by sociodemographic groups

Variables	Sex					Previous partner				
	Women (*n*= 524)		Men (*n*= 416)			No partner (*n*= 570)		Partner (*n*= 370)		
	M	*SD*	*M*	*SD*	*t*	*M*	*SD*	*M*	*SD*	*t*
Age	15.42	1.16	15.44	1.19	-0.24	15.24	1.11	15.72	1.21	-6.15***
Self-compassion	32.88	8.50	38.23	6.74	-10.77***	35.64	7.98	34.64	8.53	1.83
Emotional dependence										
Destructive overdependence	30.18	6.40	26.67	6.63	8.20***	28.66	6.72	28.58	6.76	0.18
Dysfunctional detachment	33.90	6.22	30.13	6.30	9.19***	31.80	6.63	32.90	6.32	-2.53*
Healthy dependency	30.50	6.00	33.08	5.77	-6.67***	31.33	6.02	32.12	6.04	-1.95
Attachment										
Mother attachment	93.39	18.87	96.45	15.41	-2.74**	96.10	16.67	92.65	18.50	2.91**
Father attachment	88.48	20.44	93.91	16.67	-4.49***	91.58	18.89	89.83	19.26	1.38
Peer attachment	98.22	15.94	98.58	13.91	-0.37	97.39	15.40	99.90	14.45	-2.50*
Dysfunctional psychological symptomatology										
Stress	10.86	5.06	7.14	4.50	11.91***	8.71	5.09	10.00	5.18	-3.79***
Anxiety	8.79	5.69	4.74	4.24	12.51***	6.40	5.16	7.91	5.84	-4.05***
Depression	9.01	5.96	5.41	4.83	10.17***	6.81	5.64	8.35	5.90	-3.97***

Note. *p< .05; **p< .01; *** p< .001.

As presented in Table 3, the effect of mother attachment on destructive overdependence and dysfunctional detachment was moderated by self-compassion. Concretely, the simple slopes indicated that mother attachment was related to lower destructive overdependence only when self-compassion levels were high (β= -0.05, SE= 0.22, *p*= .036), but the relationship was non-significant when self-compassion was medium (β= -0.02, SE= 0.01, p= .300) or low (β= 0.02, SE= 0.02, *p*= .309). Regarding dysfunctional detachment, mother attachment was related to lower dysfunctional detachment when self-compassion levels were medium (β= -0.04, SE= 0.01, *p*= .005) or low (β= -0.07, SE= 0.02, *p*< .001), but not when self-compassion levels were high (β= -0.01, SE= 0.02*, p*= .606).

Self-compassion also moderated the effects of destructive overdependence on anxiety and depression, and the effect of dysfunctional detachment on anxiety. Concretely, the effects of destructive overdependence on anxiety (low self-compassion: β= 0.21, SE= 0.03*, p*< .001; medium self-compassion: β= 0.16, SE= 0.02*, p*< .001; high self-compassion: β= 0.11, SE= 0.03*, p*= .001), and depression (low self-compassion: β= 0.21, SE= 0.03*, p*< .001; medium self-compassion: β= 0.16, SE= 0.02*, p*< .001; high self-compassion: β= 0.11, SE= 0.03*, p*< .001) were significant at any value of self-compassion, but these effects were stronger when self-compassion levels were lower. Moreover, the effects of dysfunctional detachment on anxiety were stronger when the self-compassion levels were low (β= 0.17, SE= 0.04*, p*< .001) than when they were medium (β= 0.11, SE= 0.03*, p*< .001), and they were non-significant when self-compassion was high (β= 0.05, SE= 0.03*, p*= .184).

As the last step, the indirect effects and the moderated mediation effects of all indirect effects involving a significant interaction were examined. Regarding the indirect effects of mother attachment on mental health, the results in Table 4 indicate that higher mother attachment was related to lower stress, anxiety and depression through the reductive effect on dysfunctional detachment. However, as shown in Table 5, the indexes of moderated mediation of all these three indirect effects were significant, so these three indirect effects were moderated by self-compassion. The simple slopes indicated that mother attachment was related to lower stress, anxiety and depression at low (Stress: Indirect effect= -.013, Bootstrap SE= .003, *p*< .001; Anxiety: Indirect effect= -.011, Bootstrap SE= .004, *p*= .003; Depression: Indirect effect= -.010, Bootstrap SE= .003, *p*= .001) and medium values of self-compassion (Stress: Indirect effect= -.007, Bootstrap SE= .003, *p*= .009; Anxiety: Indirect effect= -.004, Bootstrap SE= .002, *p*= .026; Depression: Indirect effect= -.006, Bootstrap SE= .002, *p*= .015), but not at high levels of self-compassion (Stress: Indirect effect= -.002, Bootstrap SE= .004, *p*= .615; Anxiety: Indirect effect=< .001, Bootstrap SE= .001, *p*= .685; Depression: Indirect effect= -.002, Bootstrap SE= .003, *p*= .622). Thus, mother attachment had a stronger indirect effect on mental health through dysfunctional detachment when self-compassion was lower.

Table 3
Standardized regression coefficients of the direct effects of the model

Variables	Destructive overdependence		Dysfunctional detachment		Healthy dependency		Stress		Anxiety		Depression	
	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Control variables												
Gender (Men)	-0.15***	0.03	-0.21***	0.03	0.09**	0.03	-0.18***	0.03	-0.19***	0.03	-0.09**	0.03
Age	--	--	0.08**	0.03	0.10**	0.03	0.07***	0.02	--	--	--	--
Having had partner	--	--	0.06*	0.03	--	--	0.07**	0.03	0.11***	0.03	0.10***	0.03
Attachment												
Mother attachment	-0.04	0.04	-0.11**	0.04	0.06	0.03	-0.10**	0.03	-0.06	0.03	-0.09**	0.03
Father attachment	-0.02	0.04	-0.08*	0.04	0.10**	0.03	-0.08*	0.03	-0.08**	0.03	-0.10***	0.03
Peer attachment	-0.09**	0.03	-0.13***	0.03	0.30***	0.03	-0.04	0.03	-0.06	0.03	-0.07*	0.03
Self-compassion	-0.33***	0.03	-0.17***	0.03	0.29***	0.03	-0.19***	0.03	-0.21***	0.03	-0.29***	0.03
MA x SC	-0.10*	0.04	0.09*	0.04	-0.07	0.04	-0.01	0.03	0.01	0.04	-0.02	0.04
FA x SC	-0.01	0.04	-0.06	0.04	0.03	0.03	-0.02	0.03	0.02	0.03	0.01	0.03
PA x SC	0.01	0.03	-0.05	0.03	0.03	0.03	-0.01	0.03	0.01	0.03	0.02	0.03
Emotional dependence												
Destructive overdependence							0.14***	0.03	0.19***	0.03	0.18***	0.03
Dysfunctional detachment							0.24***	0.03	0.13***	0.03	0.17***	0.03
Healthy dependency							0.03	0.03	-0.01	0.03	-0.02	0.03
DO x SC							-0.05	0.03	-0.06*	0.03	-0.06*	0.03
DD x SC							-0.05	0.03	-0.08**	0.03	-0.03	0.03
HD x SC							0.02	0.03	> -0.01	0.03	0.03	0.03

Note. MA= Mother attachment; FA= Father attachment; PA= Peer attachment; SC= Self-compassion; DO= Destructive overdependence; DD= Dysfunctional detachment; HD= Healthy dependency.
*p< .05; **p< .01; ***p< .001.

Table 4

Indirect effects of attachment on dysfunctional psychological symptomatology through emotional dependence

Variables			Stress		Anxiety			Depression		
	Med	Ind	SE	95% CI	Ind	SE	95% CI	Ind	SE	95% CI
Mother attachment	DO	-.002	.002	[-.005, .002]	-.002	.002	[-.007, .002]	-.002	.002	[-.007, .002]
	DD	-.007**	.003	[-.014, -.002]	-.004*	.002	[-.009, -.001]	-.006*	.002	[-.011, -.002]
	HD	.001	.001	[>-.001, .003]	< .001	.001	[-.002, .001]	< .001	.001	[-.003,< .001]
Father attachment	DO	-.001	.001	[-.003, .006]	-.001	.002	[-.005, .008]	-.001	.002	[-.005, .008]
	DD	-.005	.003	[-.010, -.002]	-.003	.002	[-.006 -.001]	-.004	.002	[-.008, -.001]
	HD	.001	.001	[-.001, .009]	< .001	.001	[-.002, .005]	-.001	.001	[-.003, .003]
Peer attachment	DO	-.004*	.002	[-.008, -.001]	-.006*	.002	[-.011, -.002]	-.006*	.002	[-.011, -.002]
	DD	-.011***	.003	[-.017, -.005]	-.006**	.002	[-.011, -.003]	-.008**	.003	[-.014, -.004]
	HD	.003	.003	[-.003, .010]	-.001	.003	[-.007, .006]	-.003	.004	[-.010, .004]

Notes. Med= Mediator; Ind= Indirect effect; SE= Bootstrapped standard error; 95% CI= Bootstrapped 95% CI; DO= Destructive overdependence; DD= Dysfunctional detachment; HD= Healthy dependency. *p< .05; **p< .01; ***p< .001.

The index of moderated mediation of the indirect effect of mother attachment on stress through destructive overdependence was also significant (see Table 5). However, the simple slopes were not significant at low (Indirect effect= .002, Bootrstap SE= .002, *p*= .354), medium (Indirect effect= -.002, Bootrstap SE= .002, *p*= .342) or high levels of self-compassion (Indirect effect= -.005, Bootrstap SE= .003, *p*= .070). Thus, despite the significance of the index, the interaction fell out of the range of the normal values of the scale.

Higher peer attachment was related to lower stress, anxiety and depression due to the negative effect on destructive overdependence and dysfunctional detachment (Table 4). Of these indirect effects, the index of moderated mediation of the effect of peer attachment on anxiety through dysfunctional detachment was significant (Table 5). Thus, self-compassion moderated this indirect effect. The simple slopes were significant at low (Indirect effect= -.009, Bootrstap SE= .003, *p*= .004) and medium values (Indirect effect= -.009, Bootrstap SE= .003, *p*= .004) of self-compassion, but not at high levels of self-compassion (Indirect effect= -.009, Bootstrap SE= .003, *p*= .004). Thus, the effect of peer attachment on anxiety through dysfunctional detachment was stronger at lower levels of self-compassion and non-significant when self-compassion was high.

Table 5
Moderated mediation index of attachment on dysfunctional psychological symptomatology by self-compassion

Mediation	Moderated path		Index / SE
	IV → M	M → DV	
Mother attachment → Destructive overdependence → Stress	Yes	No	-2.04*
Mother attachment → Dysfunctional detachment → Stress	Yes	No	2.20*
Mother attachment → Destructive overdependence → Anxiety	Yes	Yes	-1.90
Mother attachment → Dysfunctional detachment → Anxiety	Yes	Yes	2.84**
Mother attachment → Destructive overdependence → Depression	Yes	Yes	-1.77
Mother attachment → Dysfunctional detachment → Depression	Yes	No	2.12*
Father attachment → Destructive overdependence → Anxiety	No	Yes	0.43
Father attachment → Dysfunctional detachment → Anxiety	No	Yes	1.53
Father attachment → Destructive overdependence → Depression	No	Yes	0.42
Peer attachment → Destructive overdependence → Anxiety	No	Yes	1.74
Peer attachment → Dysfunctional detachment → Anxiety	No	Yes	2.07*
Peer attachment → Destructive overdependence → Depression	No	Yes	1.78

Notes: IV= independent variable; M= mediator; DV= dependent variable; Index= Index of moderated mediation; SE= Bootstrapped standard error. *p< .05; **p< .01.

Discussion

The first aim of the study was to explore the correlations between attachment, emotional dependence, dysfunctional psychological symptomatology and self-compassion. As expected, a positive relationship was found between self-compassion, attachment and healthy dependence and between destructive overdependence and dysfunctional detachment and dysfunctional psychological symptomatology. In turn, a negative relationship was found between self-compassion, destructive overdependence, dysfunctional detachment and dysfunctional psychological symptomatology; between destructive overdependence, dysfunctional detachment and attachment; and between attachment and dysfunctional psychological symptomatology. These findings are consistent with other studies that also found links between attachment and emotional dependence (Etxaburu et al., 2023), between attachment and depression (Zheng et al., 2020) and anxiety (Schimmenti & Bifulco, 2015), between emotional dependence and anxious-depressive symptomatology (Urbiola et al., 2017), and between self-compassion and anxious-depressive symptomatology (Egan et al., 2022) and attachment (Brophy et al., 2020).

The second objective of the study was to analyse possible differences in the levels of attachment, emotional dependence, dysfunctional psychological symptomatology and self-compassion depending on age, sex and having (or not having) had a partner. Firstly, sex is the most influential demographic variable, as sex differences are found in all variables except for attachment to peers. Higher levels of destructive overdependence, dysfunctional detachment, stress, anxiety and depression were found in females and higher levels of self-compassion, healthy dependence, attachment to mother and attachment to father in males. Other studies also show higher levels of emotional dependence (González-Bueso et al., 2018), stress, anxiety and depression in women (Global Burden of Disease Study, 2020), and higher levels of self-compassion in men (Yarnell et al., 2019). Second, having or not having a partner has been related to differences in dysfunctional attachment, attachment to mother and peers, stress, anxiety and depression. The association between having or having had a partner with greater anxious and depressive symptomatology could be explained by the influence that unsatisfactory relationships can have on people's mental health (Bastida et al., 2017). On the other hand, this association and that of having or having had a partner with a greater attachment to peers could also explain why people with higher levels of distress seek more relationships (both partners and friendships) to receive greater emotional support. Finally, age has shown positive, albeit small, relationships with peer attachment, healthy dependence and stress. This may be explained by the fact that as adolescence progresses, relationships with friends become more important (Ibarra & Jacobo, 2017). Also, individuals may learn and

evolve, seeking healthier relationships. At the same time, increasing academic demands may generate higher levels of stress.

The third and final aim of the study was to analyse the mediating role of emotional dependence in the relationship between attachment and anxious-depressive symptomatology. Furthermore, to study the moderating role of self-compassion in the relationship between attachment and emotional dependence, between attachment and dysfunctional psychological symptomatology, and between emotional dependence and dysfunctional psychological symptomatology. The results have shown, firstly, that the effect of mother attachment on destructive overdependence and dysfunctional detachment was moderated by self-compassion. The relationship between attachment and emotional dependence has been extensively studied and shown to be significantly related, for example, in the studies by Etxaburu et al. (2023) and Momeñe and Estévez (2018). However, the relationship found between self-compassion and emotional dependence is novel. Considering that self-criticism is positively and significantly related to emotional dependence (Momeñe et al., 2021) and that self-criticism and self-compassion are opposite constructs (Wakelin et al., 2022), the results of this study, where self-compassion is a protective factor against emotional dependence, are congruent with previous literature. Secondly, it has been found that the effects of destructive overdependence on anxiety and stress and the effect of dysfunctional detachment on anxiety were also buffered by self-compassion. That is, in people who develop interpersonal relationships with unhealthy levels of dependence, understanding and being kind to oneself can alleviate the stress and anxiety of these relationships. This is why treatments focused on increasing self-compassion are effective in reducing levels of anxiety and depression, especially by reducing self-criticism (Egan et al., 2022). Finally, in line with the above, greater mother attachment was found to be related to lower stress, anxiety and depression through the reductive effect on dysfunctional detachment, and these three indirect effects were moderated by self-compassion. Moreover, greater peer attachment was related to less stress, anxiety and depression due to the negative effect on destructive overdependence and dysfunctional detachment. However, only the effect of peer attachment on anxiety was moderated by self-compassion through dysfunctional detachment.

This study has some limitations. It is a cross-sectional study, so causal relationships cannot be concluded. At the same time, the results were obtained using self-administered questionnaires. Social desirability may have biased the data obtained, as participants may have wanted to offer a positive self-image rather than answering honestly. This is especially true given that this is a sample of adolescents, which is an age where social desirability tends to be strongest.

In conclusion, there is a relationship between attachment, dysfunctional psychological symptomatology, self-compassion and emotional dependence. Also, self-compassion could moderate the relationship between attachment, emotional dependence and dysfunctional psychological symptomatology. These results are important because self-compassion could be acknowledged as having a protective effect on levels of stress, anxiety and depression, which are increasingly common in adolescents (Global Burden of Disease Study, 2020). This is especially true, as

self-compassion is a relatively simple construct to address and can be trained from childhood. It is also important to realise how self-compassion moderates the relationship between attachment and emotional dependence, especially given the multiple problems to which it is related. Therefore, the findings of this study can be used both in the prevention and treatment of emotional dependence, stress, anxiety and depression.

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Appendix

Hypothesized model