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Abstract: The hopelessness depression (HD) theory assumes a number of contributing factors to the development of hopelessness expectations and HD symptoms. However, little research has been conducted in order to examine gender differences in the relationship of these factors with HD. This study explored the relationship of daily stress and coping styles with HD in adolescents and analysed the moderating effects of gender. Secondary students (N = 480; aged 13-17) completed the Hopelessness Scale, the Hopelessness Depression Symptoms Questionnaire, the Problem Questionnaire and the Coping Across Situations Questionnaire. Using hierarchical regression analyses, results showed a moderating effect of gender on the relationship between daily stress and hopelessness expectations, which revealed a significant effect for boys despite the fact that girls experienced more daily stress than boys. Regarding coping styles, results showed that the avoidant coping style predicted HD independently of gender and, interestingly, a moderating effect of gender for the active and internal coping styles. While the active coping style showed a protective effect for HD symptoms in girls, the internal coping style played an analogous role in boys, suggesting that girls would benefit from being more action-prone and boys from being more reflection-prone in order to prevent HD.

Daily Stress and Coping Styles in Adolescent Hopelessness Depression: Moderating Effects
of Gender

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Highlights

- Daily stress and coping styles contribute to adolescent's hopelessness depression.
- Gender moderates the relation of stress and coping with hopelessness depression.
- Gender moderation of daily stress suggests an inoculation effect in girls.
- Avoidant coping predicts hopelessness depression disregarding gender.
- Girls would benefit from being more action-prone whereas boys more reflection-prone.

Abstract

The hopelessness depression (HD) theory assumes a number of contributing factors to the development of hopelessness expectations and HD symptoms. However, little research has been conducted in order to examine gender differences in the relationship of these factors with HD. This study explored the relationship of daily stress and coping styles with HD in adolescents and analysed the moderating effects of gender.

Secondary students (N = 480; aged 13-17) completed the Hopelessness Scale, the Hopelessness Depression Symptoms Questionnaire, the Problem Questionnaire and the Coping Across Situations Questionnaire. Using hierarchical regression analyses, results showed a moderating effect of gender on the relationship between daily stress and hopelessness expectations, which revealed a significant effect for boys despite the fact that girls experienced more daily stress than boys. Regarding coping styles, results showed that the avoidant coping style predicted HD independently of gender and, interestingly, a moderating effect of gender for the active and internal coping styles. While the active coping style showed a protective effect for HD symptoms in girls, the internal coping style played an analogous role in boys, suggesting that girls would benefit from being more action-prone and boys from being more reflection-prone in order to prevent HD.

Keywords: coping styles, daily stress, hopelessness depression, adolescence, gender moderation

Daily Stress and Coping Styles in Adolescent Hopelessness Depression: Moderating Effects of Gender

1. Introduction

Hopelessness depression (HD) is one of the subtypes of depression with greater empirical support and includes two main components: hopelessness expectations and symptoms of HD (Abramson, Metalsky, & Alloy, 1989; Hankin, Abramson, & Siler, 2001). Studies carried out to test HD theory have generally supported the prediction that a negative attributional style contributes to the development of hopelessness expectations and HD symptoms (Alloy & Clements, 1998), although the evidence is less consistent for adolescents (Abela & Sarin, 2002; Hankin et al., 2001; Rodríguez-Naranjo & Caño, 2010). Due to these inconsistent results, as well as the assumption advanced by HD theory that other factors aside from attributional style may contribute to the development of HD, in this study we examined the potential role of adolescents' daily stress and coping styles as contributing factors to HD at these ages, and the effects of gender on these relationships. Provided that a gender moderation effect of the relationship between coping styles and HD were found, it would lead to immediate practical applications.

1.1. Stress and coping in adolescent HD

Similar to what occurs in general depression, research shows that the exposure to major life events and daily stress is associated with hopelessness expectations in adolescence (Landis, Gaylord-Harden, Malinowski, Grant, Carleton, & Ford, 2007;

Soria, Otamendi, Berrocal, Caño, & Rodríguez-Naranjo, 2004). Likewise, it has been found that composite scores of major life events and daily stress are associated to HD symptoms at these ages (Hankin et al, 2001). Seiffge-Krenke (1995) showed that stress in daily life plays a particularly relevant role during adolescence and described three coping styles used by adolescents to face daily stress: active and internal approach-oriented styles, which are considered functional and complementary, and avoidant style, considered dysfunctional. Several studies have assessed the relationship between these coping styles and depressive symptoms for both adults and adolescents, with largely coherent results for the avoidant style (Herman-Stahl, Stemmler, & Petersen, 1995; Kort-Butler, 2009) and less conclusive results for the active one (Roberts, Roberts, & Chan, 2009; Steinhausen, Haslimeier, & Metzke, 2007). Regarding the relationship between the internal or cognitive coping style and depressive symptoms, it is helpful to follow the distinction proposed by Nolen-Hoeksema and colleagues between brooding and reflection as subtypes of cognitive coping strategies. In an empirical study of a community sample of adults, they found that whereas brooding predicted the increase of depressive symptoms over time, reflection predicted a decrease in these symptoms (Treyner, González, & Nolen-Hoeksema, 2003). Similar results have been found in adolescents, for whom brooding, but not reflection, predicts the development of depressive symptoms (Burwell & Shirk, 2007; Cox, Funasaki, Smith, & Mezulis, 2011). In the same vein, Kort-Butler (2009) described an impulsive and non-thinking coping style, which was found to be related to adolescents' depressive symptoms. Thus, the relevant role of stress and coping styles in depressive reactions suggests that the dysfunctional coping patterns used by adolescents in their daily lives may also contribute to the development of HD. In fact, Landis et al. (2007) found that both active and avoidant coping styles are associated with hopelessness expectations. As far as we

are aware, there are no studies that have tested the effects of coping styles on HD symptoms.

Little research has been conducted in order to analyse gender differences in the relationship of coping styles with depressive symptoms in adolescence. Several studies have found that the avoidant coping style is more associated with depressive symptoms in girls (e.g., Seiffge-Krenke & Stemmler, 2002), while others have not found gender differences in this relationship (e.g., Kort-Butler, 2009). Furthermore, it has been found that a low use of active coping strategies and a high use of rumination are linked to greater levels of depressive symptoms in girls as compared to boys (Broderick & Korteland, 2002). Landis et al. (2007) have found similar gender differences in the relationship of active and ruminative coping styles with hopelessness expectations in adolescents.

1.2. Aims of the study

The contributing factors to HD in adolescence are not well known. We suggest that daily stress and coping styles could be contributing to HD in adolescence, and that this contribution would be moderated by gender. The objective of this study was to investigate these relationships. Following Seiffge-Krenke (1995), we distinguished between an avoidance oriented style and two approach oriented styles, one comprising active-behavioural coping strategies and the other internal-cognitive ones. Since HD theory posits that hopelessness depression comprises both hopelessness expectations and HD symptoms (Abramson et al., 1989), we included these two components as measures of HD in our study. On the basis of the reviewed literature, we expected that: (1) higher levels of daily stress would predict higher levels of HD; (2) higher scores in

avoidant coping style would predict higher levels of HD; (3) higher scores in the two approach-oriented coping styles (active and internal) would predict lower levels of HD. Finally, we expected (4) a gender moderation effect on the relationships between both approach-oriented coping styles and HD, with (4.1) higher active coping style scores predicting lower levels of HD mainly in girls, and (4.2) higher internal coping style scores predicting lower levels of HD mainly in boys.

2. Method

2.1. Participants and procedure

The current study utilized data collected in 2011 as part of a research project approved by the university's Institutional Review Board (IRB). A total of 650 adolescents were intended to participate in the study. They were studying 8th to 11th grades of Compulsory and Higher Secondary Education in three semi-private schools that were randomly selected from different districts representative of middle-class areas in Málaga, a mid-sized city of southern Spain. Exclusion criteria for participants were the absence of parents/guardians' consent ($n=71$) and having missing data on one or more measures of interest ($n=99$), resulting in a response rate of 73.8%. The final sample consisted of 480 adolescents (279 girls, 201 boys) aged between 13 and 17 ($M = 15.05$; $SD = 1.39$), all Caucasian. A three-item scale (range 0-8) was used to measure socioeconomic status, based on housing conditions and on the education and occupation of the parents/guardians. The average score in our sample was 4.07 ($SD = 1.17$), with higher scores representing better housing conditions (range 0-2; from *three or more people sharing a room* to *two or more rooms per person*), higher parental education (range 0-3; from *did not complete primary school* to *higher education*), and better

occupations of the parents/guardians (range 0-3; from *unskilled labourers* to *major professionals*). Participants in the study were recruited through the school they attended. The Schools' Principals were informed about the research objectives and procedures, and their permission sought for students to be offered participation in the study. Likewise, an informed consent form for parents/guardians was mailed explaining the research background, and assuring anonymity and that data would only be used for research purposes without being shared with third parties. Parents/guardians were asked to explicitly answer whether they allowed their wards to participate in the study or not. The form also included a return envelope that students had to bring to school, and a total of 89% of consent forms were returned. The students were informed that participation in the study was voluntary and that their responses would be anonymous. None of the adolescents, nor the parents/guardians who returned the consent form, declined to participate in the study. Administration of the questionnaires took place during regular school hours and a research assistant was present.

2.2. Measures

2.2.1. Hopelessness Depression Symptoms Questionnaire (*HDSQ*)

The HDSQ (Metalsky & Joiner, 1997) evaluates eight symptoms specified by the HD theory (Abramson et al., 1989). Each symptom is assessed through a set of four items, each rated from 0 to 3, with scores for the scale ranging from 0 to 96. The HDSQ has demonstrated sound psychometric properties in adolescent and young adult populations (Metalsky & Joiner, 1997; Rodríguez-Naranjo & Caño, 2010), and it exhibited an internal consistency of .89 in our sample.

2.2.2. Hopelessness Scale (HS)

The HS (Beck, Weissman, Lester, & Trexler, 1974) evaluates the expectations about the occurrence of negative events and about the lack of ability to avoid them. It includes 20 items, nine that are keyed “False” and 11 that are keyed “True”, resulting in a score that ranges from 0 to 20, with higher scores indicating higher hopelessness. The HS has demonstrated good psychometric properties when used in adult and adolescent populations (Beck et al., 1974; Hankin et al., 2001), exhibiting an internal consistency of .84 in our sample.

2.2.3. Problem Questionnaire (PQ)

The PQ (Seiffge-Krenke, 1995) evaluates daily stress or hassles in adolescents. Along 64 items that describe common everyday stressors, participants are asked to rate the stressfulness in their lives of each item from 1 (*not stressful at all*) to 5 (*highly stressful*), with the scale ranging between 64 and 320. Seiffge-Krenke (1995) reported adequate psychometric properties for the questionnaire, which exhibited an internal consistency of .97 in our sample.

2.2.4. Coping Across Situations Questionnaire (CASQ)

The CASQ (Seiffge-Krenke, 1995) is aimed at evaluating adolescents’ coping styles. It consists of 160 items resulting from a matrix of 20 coping strategies across eight daily life areas. Participants are required to mark the coping strategies they regularly use when a problem arises across the different areas. Seiffge-Krenke (1995) found internal consistencies for the active, internal and avoidant styles of .88, .77 and .73, respectively. The internal style comprises six strategies, ranging from 0 to 48, and the active and avoidant styles comprise seven strategies each, with ranges between 0 and 56. The

questionnaire exhibited an internal consistency in our sample of .87 for the active, .88 for the internal, and .88 for the avoidant coping style subscales.

According to the back-translation procedure (Brislin, Lonner, & Thorndike, 1993), all the questionnaires were translated from English to Spanish by a native Spanish speaker, then translated back to English by a native English speaker and compared to the original to ensure semantic equivalence.

2.3. Data analytic strategy

All measures were normally distributed (K-S test). Descriptive analyses and gender differences tests were conducted first. To test the role of daily stress and coping styles in the prediction of hopelessness expectations and HD symptoms, two four-step hierarchical multiple regression analyses were conducted. In these analyses, gender (coded 0 for boys and 1 for girls) was introduced first, daily stress was introduced second, the three coping styles were entered in a third step, and the moderating effects of gender on the associations of the predictor variables (daily stress and each coping style) with the criterion variables (hopelessness expectations or HD symptoms) were introduced in a fourth step. In order to test moderation, Aiken and West's (1991) suggestions were followed. Significant gender moderation effects were more closely examined by plotting the regression equation of the criterion variable (hopelessness expectations or HD symptoms) against the predictor variable (daily stress or the corresponding coping style) for each value of gender. To plot these slope lines, two values of the predictor were substituted into the equation ($\text{mean} \pm 1SD$ for low and high predictor values were chosen). Additionally, simple slope analyses were conducted to

determine whether the regression slopes were distinctively significant for females and males. Finally, three-way interactions were explored, although, as no significant effects were found, the results are not reported. All the analyses were carried out with the SPSS 22.0 program for Windows.

3. Results

Table 1 presents the mean values, standard deviations, and correlations between all the variables. The results revealed significant gender differences for daily stress [$t(478) = -4.26; p \leq .001$], active coping style [$t(478) = -2.01; p \leq .05$], and avoidant coping style [$t(478) = -2.10; p \leq .05$]; as well as a nearly significant effect for HD symptoms [$t(478) = -1.92; p = .055$]. In all the above differences, girls scored higher than boys. Consequently, in the hierarchical regression analyses the effects of gender on hopelessness expectations and HD symptoms were partialled out. Additionally, the two-way interaction effects of gender with daily stress and coping styles were introduced in the last step of the regression equation.

[Table 1 near here]

Table 2 shows the results of a four-step hierarchical regression analysis in which hopelessness expectations scores were successively regressed on gender, daily stress, coping styles and the four two-way interactions. The results showed that daily stress significantly contributed to the prediction of hopelessness expectations, with higher levels of daily stress predicting higher hopelessness expectations scores [$\Delta R^2 = .01, F(1, 477) = 4.01, p \leq .05$]. There was also a significant contribution of coping styles to the prediction of hopelessness expectations [$\Delta R^2 = .05, F(3, 474) = 8.04, p \leq .001$]. A closer

inspection of the coping styles block revealed that the active and avoidant styles, but not the internal, were significant predictors of hopelessness expectations, such that the active style inversely predicted, and the avoidant style directly predicted, hopelessness expectations. Finally, none of the cross-product interactions by gender reached statistical significance, although the interaction of gender by daily stress showed a marginally significant effect ($\beta = -.14, p = .066$), which could qualify the main effect found for daily stress. Thus, following Aiken and West's (1991) suggestions to examine interaction we conducted simple slope analyses of the daily stress by gender interaction. Simple slope tests revealed a significant regression slope in boys [$t(473) = 2.58; p \leq .01$], but not in girls [$t(473) = .27; n.s.$]. The slopes are plotted in Figure 1, which depicts a direct association between daily stress and hopelessness expectations in boys and a nearly horizontal slope in girls.

[Table 2 near here]

[Figure 1 near here]

The same analysis scheme was applied using HD symptoms as the criterion variable in an additional hierarchical regression analysis (see Table 2). Results revealed that coping styles, but not daily stress, significantly contributed to the prediction of HD symptoms [$\Delta R^2 = .06, F(3,474) = 10.24, p \leq .001$]. A more detailed view of the results in the coping styles block revealed a significant effect only for the avoidant style, with higher avoidant style scores predicting higher HD symptoms. Of most interest are the results regarding moderation by gender. The interactions of gender by active and by internal coping styles revealed significant effects of gender in moderating the

associations between these coping styles and HD symptoms [$\beta = -.241, p \leq .05$, for gender by active style; $\beta = .211, p \leq .05$, for gender by internal style]. Figure 2 shows these interaction effects, plotting the regression slopes of HD symptoms against active and internal coping styles for boys and girls. Interestingly, a virtually parallel inverse association between HD symptoms and active style in girls on one hand, and HD symptoms and internal style in boys on the other hand, can be observed; while the nearly horizontal slopes for the active style in boys and internal style in girls show no association with HD symptoms. This interpretation was confirmed by simple slope tests [$t(473) = .53$, n.s., for active style in boys; $t(473) = -2.76, p \leq .01$, for active style in girls; $t(473) = -2.26, p \leq .05$, for internal style in boys; $t(473) = .48$, n.s., for internal style in girls].

[Figure 2 near here]

4. Discussion

The HD theory assumes that a number of factors, aside from attributional style, could contribute to the development of hopelessness expectations and HD symptoms. Firstly, our data showed that daily stress predicted hopelessness expectations. This extends previous findings showing that the experience of major life events and uncontrollable stress increases hopelessness expectations in adolescents (Landis et al., 2007; Soria et al., 2004). Secondly, in agreement with the parallel effects found for the attributional style in HD theory (Abramson et al., 1989; Alloy & Clements, 1998), our results showed a broadly similar prediction pattern for the coping styles on hopelessness expectations and HD symptoms. The results revealed that adolescents using more

avoidant and less active strategies in coping with daily problems evinced more hopelessness expectations than adolescents using the inverse strategies. A similar pattern was found for the relationship between coping styles and HD symptoms (although for the active style it did not reach statistical significance, $p = .069$). These results are consistent with cross-sectional and longitudinal studies showing a direct relationship between the use of avoidant coping strategies and depressive symptoms (Herman-Stahl et al., 1995; Kort-Butler, 2009) and an inverse relationship between these symptoms and the use of active coping strategies (Herman-Stahl et al., 1995; Steinhausen et al., 2007). A possible explanation for the relationship found between the active coping style and HD is that a high use of active responses directed towards the problem would increase the likelihood of obtaining desired outcomes and, consequently, create a sense of control over the environment and a mood strengthening effect (see Carver, Scheier, & Weintraub, 1989). Inversely, a low use of active strategies in dealing with daily problems would lead adolescents to poor outcome expectations, which is a component of HD. The avoidant coping style, although conceptually and empirically distinguishable from the active style, could operate by a similar mechanism in order to induce HD. Avoidant coping refers to the use of specific strategies aimed at making the person feel better, mainly by shifting the focus from the problem to other, more pleasant, situations. This change in the scenario focus, which serves to overlook the stressful situation, would make the person more likely to fail when, eventually, he or she had to deal with it or its consequences, and therefore undesired outcomes and hopelessness would arise.

The analyses of gender differences showed that girls had higher levels of daily stress and used more active and avoidant coping strategies than boys, and also exhibited a tendency to experience a greater number of HD symptoms, which is consistent with

results obtained in previous studies (Hankin et al., 2001; Kort-Butler, 2009; Matud, 2004; Seiffge-Krenke et al., 2012). More relevant to the objective of this study, our results showed that the contribution made by stress and coping styles to the explanation of hopelessness expectations and HD symptoms is moderated by gender. An interesting finding emerges regarding daily stress, which was a significant predictor of hopelessness expectations in boys, but not in girls (see Fig. 1). This result was not expected, and it is particularly remarkable in light of the results obtained in the present study and others, which have revealed higher levels of daily stress in girls than boys at this developmental stage. This finding may indicate a stress inoculation effect, by which the daily stress experienced by girls would buffer them from the adverse effects of stressful situations which would lead to hopelessness, and is consistent with the “steeling” effect described by Chorpita and Barlow (1998). In the same way, Rudolph and Flynn (2007) stated that youths not exposed to adversity would be expected to exhibit higher levels of depression in the face of stress than those exposed to it. Although more research is needed, our results showing that girls experience more daily stress than boys, together with the finding that daily stress does not predict hopelessness in girls while it does in boys, support this stress inoculation hypothesis.

The results regarding gender differences in coping style dimensions as HD predictors are also suggestive. As expected, our results showed that gender moderates the relationship of the active and internal coping styles with HD symptoms, revealing a protective effect for the active style in girls and for the internal style in boys (see Fig. 2). These results are coherent with others concerning hopelessness and general depression (Broderick & Korteland, 2002; Landis et al., 2007). Specifically, Landis et al. (2007) described gender differences in the prediction of hopelessness expectations by coping styles, showing that high use of rumination and low use of active coping

strategies were predictive of hopelessness expectations in girls, but not in boys.

Likewise, in their study on gender differences in the relationship between coping styles and depression, Broderick and Korteland (2002) found that girls with higher levels of depressive symptoms are characterised by high use of rumination and low use of active problem solving strategies. Our results support these findings for the active coping style in girls and extend them for boys, for whom a low use of internal-cognitive strategies was related to high levels of HD symptoms and, together with Landis et al.'s and Broderick and Korteland's findings, suggest a reverse pattern for girls and boys in the relationship between the use of active and internal coping strategies and depression.

One last remark concerns the relationship between internal-cognitive coping strategies and depression, which has caused controversy over whether these strategies are maladaptive or adaptive (see Treynor et al., 2003). While some studies of adolescents have found that a coping style comprising brooding-ruminative responses to stressful situations predicts hopelessness expectations (Landis et al., 2007) and depressive symptoms (Broderick & Korteland, 2002), other findings show that the reflective part of the rumination is related to lower levels of depressive symptoms at these ages (Burwell & Shirk, 2007). In our study, the internal coping style, as measured by the CASQ scale, is defined as the use of cognitive responses to solving stressful situations caused by daily life, considering possible solutions and anticipating results (Seiffge-Krenke, 1995), thus involving the reflective rumination component. Accordingly, our finding that the internal coping style negatively predicts HD symptoms in boys is coherent with Burwell and Shirk's findings about the role of brooding and reflection in the prediction of depressive symptoms. These findings emphasise the need to precisely define the strategies comprised in the cognitive modes

of coping. To our knowledge, the current study is the first to suggest that the use of reflection on one's problems is a male-specific protective factor for depression.

The present findings have implications for research on coping styles. When analysing gender differences on the prediction of HD, further evidence is provided to keep the distinction between the active and internal coping styles as originally proposed by Seiffge-Krenke (1995) rather than merging them in a single approach-oriented style (Herman-Stahl et al., 1995). Since the strategies comprised in the active and internal coping styles are considered adaptive, and these styles show a high intercorrelation ($r = .77, p \leq .001$), it could seem reasonable to combine them in one adaptive approach-oriented style, in contrast to the maladaptive avoidant coping style. However, had we applied this styles' integration to the analyses carried out on HD symptoms in our sample, we would have obtained a robust main effect for the approach-oriented style ($\beta = -.20, p \leq .001$), without any trace of gender moderation effect ($\beta = -.01, p = .90$), thus masking the different role that the active and internal coping styles play in the prediction of HD for girls and boys.

These results also point towards practical recommendations for the refinement of educational and intervention programs, as well as for clinical practice. Our findings suggest that female and male adolescents may not benefit equally from training in active and internal coping strategies. Consequently, interventions should be gender adapted, discouraging the use of avoidant coping strategies in favour of approach-oriented ones for both genders, but focusing on the training of active-behavioural coping strategies in girls whereas implementing internal-reflective coping strategies in boys. Taking HD as a measure of psychological maladjustment, our results suggest that girls would benefit from being more action-prone in their daily lives, while boys would benefit from being more reflection-prone.

5. Limitations

This research has some limitations. Firstly, further studies are needed to determine the extent to which these results could be generalised to adolescents across a variety of socio-cultural contexts. Actually, a number of studies have revealed cultural differences in adolescent coping styles (Seiffge-Krenke et al., 2012). Likewise, caution should be taken to generalise these findings to clinical or subclinical depressive adolescents, since our objective has been to study the relationship of daily stress and coping styles with HD within a non-clinical adolescent population. Secondly, the use of the term “effect” in this study is qualified by our cross-sectional design. Thus, our results reflect predictive statistical associations but caution is needed before these associations can be established as causal links. To further examine the causal links between daily stress, coping styles and HD in adolescents, future studies should employ multi-wave longitudinal and experimental designs. Despite these limitations, this study demonstrates several strengths. The study included a relatively large sample of adolescents, employed psychometrically sound measures, and applied a hierarchical regression strategy that allowed us to examine and control the effects of the variables under study and to analyse the moderating role of gender.

6. Conclusions

The main conclusion of this study is that the relationships of daily stress and coping styles with HD are moderated by gender. Daily stress predicted hopelessness expectations in boys but not in girls which, together with the finding that girls

experienced more daily stress than boys, suggest an inoculation effect in girls. It was also found a gender-dependent role of coping styles in the prediction of HD symptoms, revealing a protective effect for the active style in girls and for the internal style in boys. This suggests that girls would benefit from being more action-prone and boys more reflection-prone in order to prevent HD. These findings indicate that programs aimed to promote coping skills in adolescents would benefit from being gender-adapted.

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Table 1. Descriptive statistics and bivariate correlations between the variables in the study.

	1	2	3	4	5	6	Total Sample (n = 480)		Boys (n = 201)		Girls (n = 279)	
							<i>M</i>	<i>DT</i>	<i>M</i>	<i>DT</i>	<i>M</i>	<i>DT</i>
1. Daily stress	–	.09	.10	.15*	.10	.17*	185.06	53.86	172.94	50.46	193.79	54.62
2. Hopelessness depression symptoms		–	.44*	-.05	-.05	.19*	16.73	10.06	15.69	10.43	17.47	9.73
3. Hopelessness expectations			–	-.09	-.05	.14*	4.67	3.84	4.42	3.50	4.86	4.06
4. Active coping				–	.77*	.47*	15.23	8.30	14.34	8.10	15.87	8.40
5. Internal coping					–	.44*	13.16	8.39	12.42	8.63	13.70	8.18
6. Avoidant coping						–	10.54	7.65	9.68	7.18	11.16	7.93

Note: * $p \leq .003$ (overall significance level $p \leq .05$ adjusted at $p \leq .003$ following Bonferroni correction for multiple comparisons).

Table 2. Hierarchical multiple regressions for the prediction of hopelessness expectations and HD symptoms.

	Predictors	Hopelessness expectations		HD symptoms	
		R^2	β	R^2	β
Step 1	Gender	.003	.056	.008	.087
Step 2	Daily stress	.012*	.094*	.013	.071
Step 3	Coping styles	.059***		.073***	
	Active		-.218**		-.130 ^b
	Internal		.012		-.080
	Avoidant		.215***		.271***
Step 4	Gender moderation	.069***		.086***	
	Daily stress x Gender		-.135 ^a		.042
	Active x Gender		-.073		-.241*
	Internal x Gender		.045		.211*
	Avoidant x Gender		.100		.106

Note: * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; ^a $p = .066$; ^b $p = .069$.

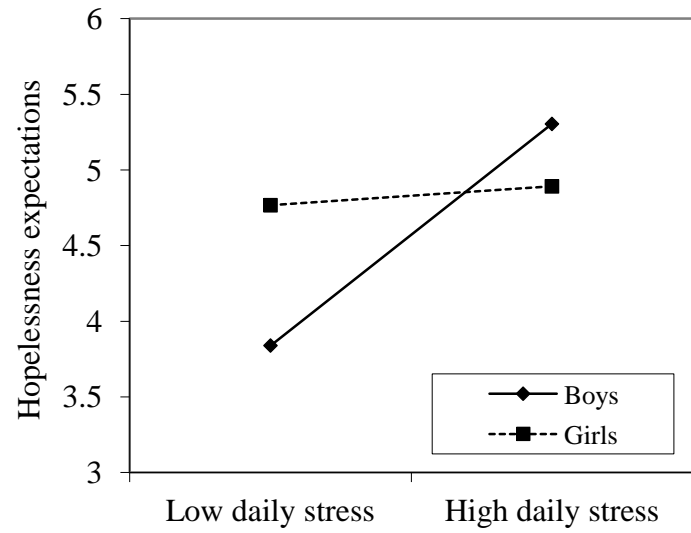


Fig. 1. Moderation by gender of the association between daily stress and hopelessness expectations.

(Fig. 1 is a single-column fitting image)

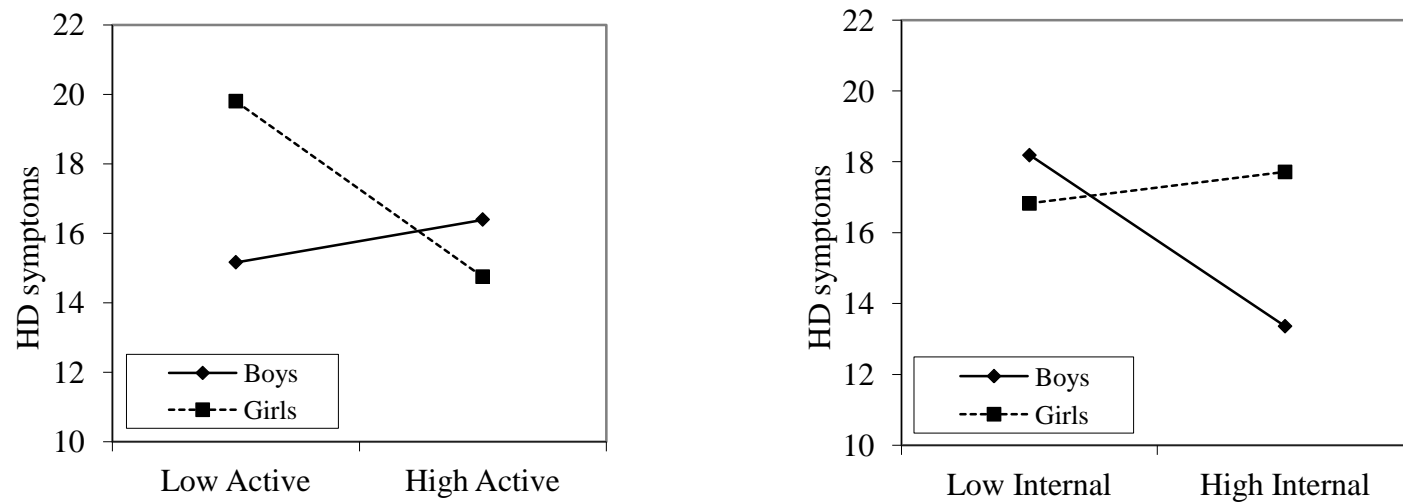


Fig. 2. Moderation by gender of the associations of active and internal coping styles with HD symptoms.

(Fig. 2 is a 2-column fitting image)

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