



# Primary versus secondary psychopathy: Coping styles as a mediator between psychopathy and well-being

Seren Saltoğlu<sup>1</sup> · Doruk Uysal Irak<sup>2</sup>

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## Abstract

This study investigated the differences in the levels of adaptiveness of primary and secondary psychopathy in the context of psychological well-being (depression, anxiety, stress, and life satisfaction) and the mediating role of three different coping styles (task-focused coping, emotional coping, and avoidance coping) in this relationship. In a non-clinical sample of 297 participants, results indicated that both primary and secondary psychopathy facets were likely to rely on maladaptive coping styles and have poor psychological well-being. Nevertheless, in comparison to secondary psychopathy, primary psychopathy was related to less maladaptive choice of coping styles and to comparatively higher levels of psychological well-being. These findings indicated the need for clinical prevention and intervention programs for teaching sub-clinical psychopaths – particularly people with high levels of secondary psychopathy – effective coping skills and, consequently, ameliorating their psychological well-being and diminishing their negative impact on other people, while taking psychopathy’s multidimensional nature into account.

**Keywords** Primary psychopathy · Secondary psychopathy · Coping · Psychological well-being

## Introduction

While the existence of cold-hearted dictators and cruel serial killers blatantly exposes the malevolent side of human beings and reveals how psychopathy shows itself in everyday life, there are also milder versions of this malevolent trait within society, known as sub-clinical psychopathy. People with sub-clinical psychopathy are often able to live a relatively ordinary life and even operate in respected positions in the community while still engaging in antisocial acts. Unfortunately, if these individuals are able to maintain a low profile, it is possible for them to avoid recognition and penalty. This may be because of the relatively adaptive aspects of psychopathy that are evident in the distinction of psychopathy into *primary* and *secondary*

facets (Blackburn, 1975). For instance, research has revealed that primary psychopathy (PP) is related to better emotion regulation while secondary psychopathy (SP) predicts socially deviant behaviors (Berg et al., 2013; Hare et al., 1990; Lee & Salekin, 2010; Levenson, Kiehl, & Fitzpatrick, 1995). However, more research is needed in order to distinguish psychopathy’s adaptive and maladaptive aspects as suggested by various researchers (e.g. Furnham, Richards, & Paulhus, 2013; Muris, Merckelbach, Otgaar, & Meijer, 2017; Rauthmann & Kolar, 2012; Smith & Lilienfeld, 2013; Zeigler-Hill & Vonk, 2015). In a study by Marcus et al., (2012), stress immunity was demonstrated to better characterize primary psychopathy than secondary psychopathy. If two facets of psychopathy are different in terms of stress immunity, then their relationship with coping styles will also be different, for the reason that personality predicts the choice of coping styles, since personality traits influence how the person evaluates stress (Birkás, Gács, & Csathó, 2016). In line with previous studies, the main aim of the current study was to extend knowledge about the differences in the adaptiveness levels of the two psychopathy facets. With this focus, the relationship between PP and SP and the task-focused, emotion-focused, and avoidance coping styles were explored, as well as the role of coping styles as mediators between PP and SP and psychological well-being (stress, anxiety, depression, life satisfaction). Consequently, psychologists would be able

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✉ Seren Saltoğlu  
serensaltoglu@gmail.com

Doruk Uysal Irak  
doruk.uysalirak@eas.bau.edu.tr

<sup>1</sup> Department of Psychology, Işık University, Büyükdere Caddesi No:194 Maslak, Istanbul 34398, Turkey

<sup>2</sup> Department of Psychology, Bahcesehir University, Ciragan caddesi, Osmanpasa Mektebi Sokak No:4 Besiktas, 34353 Istanbul, Turkey

to adapt intervention and psychoeducation programs in line with the different needs and behavioral patterns of the distinct aspects of psychopathy. In summary, the specific adaptive characteristics that help psychopathic individuals succeed in life can be reinforced while their maladaptive characteristics that negatively affects both themselves and people around them can be diminished.

### The Facets of Psychopathy and Well-Being

Sub-clinical psychopathy is characterized by deviant behavior, low levels of empathy, lack of remorse, desire for dominance, manipulativeness, dishonesty, insincerity, egocentricism, and impulsiveness (Cleckley, 1976), while differences appear between, and define, two separate facets of sub-clinical psychopathy (Blackburn, 1975). The first, PP, is argued to be an antagonistic interpersonal style identified with fearlessness, callousness, manipulativeness, deceitfulness, and better emotion regulation skills. SP, the second, is claimed to be a heightened negative emotionality characterized by anxious, impulsive, and aggressive tendencies, and social deviance (Berg et al., 2013; Hare et al., 1990; Lee & Salekin, 2010; Levenson et al., 1995; Miller, Gaughan, & Pryor, 2008). Considering the high anxiety levels, aggressiveness, impulsivity, irritability, and poor interpersonal skills of SP and the low neuroticism, anxiety, callousness, fearlessness, and ability to control emotions of PP (Berg et al., 2013; Blackburn, 1975; Hare et al., 1990; Lee & Salekin, 2010; Levenson et al., 1995), it can be inferred that PP would be relatively more adaptive than SP. Nevertheless, due to the different etiology of the two facets, SP can be more malleable than PP with the help of therapeutic interventions. More specifically, PP has a genetic basis with deficits in processing and recognizing emotions, whereas SP is thought to be an acquired condition (Karpman, 1941; Lee & Salekin, 2010; Muris et al., 2017; Puthillam, Karandikar, & Kapoor, 2019).

The effect of personality traits on both psychological and physical well-being is a well-known fact (e.g. DeNeve & Cooper, 1998; Schmutte & Ryff, 1997) and many researchers have studied the role of psychopathy on well-being (e.g. Beaver et al., 2014; Egan, Chan, & Shorter, 2014; Eisenbarth et al., 2018). For instance, psychopathy was negatively related to eudaimonic and hedonic well-being (Aghababaei & Błażnio, 2015), positive mood (Egan et al., 2014), happiness, life satisfaction, perceived physical health, and protective health behaviors. It was also positively related to negative mood, depression, number of diseases the person has, physical symptoms (Hudek-Knežević, Kardum, & Mehić, 2016; Love & Holder, 2014; Shih, Chi, Wu, & Wang, 2019), increased risk for diabetes, high cholesterol, high blood pressure, and neurological disorders, signifying a reduction in general health (Beaver et al., 2014). Therefore, it can be inferred that psychopaths would have low levels of

psychological and physical well-being and considering their poor interpersonal relationships and inability to regulate their emotions, these findings are as expected (Love & Holder, 2014).

Few researchers have studied the differences between the two facets of psychopathy in terms of psychological well-being. PP was negatively related to depression and less frequent use of words related to sadness (Willemsen, Vanheule, & Verhaeghe, 2011). Moreover, PP was positively related to durable happiness, personal growth, and hope, and negatively related to fluctuating happiness, whereas SP was positively related to fluctuating happiness and meaning in life and negatively related to all other well-being indicators (Durand, 2016). Other studies also reported that PP predicted lower posttraumatic stress (Willemsen, Ganck, & Verhaeghe, 2012), less sensitivity to stressors (Johnson, Beehr, & O'Brien, 2015), and had a negative relationship with generalized anxiety disorder and major depressive disorder (Eisenbarth et al., 2018). On the other hand, SP predicted higher stress levels (Johnson et al., 2015) and had positive relationship with depression, anxiety, negative affect, and anger (Benning, Patrick, Blonigen, Hicks, & Iacono, 2005). In conclusion, in parallel with previous research, PP was expected to be less maladaptive in terms of psychological well-being compared to SP while still having a significant negative relationship to it.

### The Role of Coping Styles as a Mediator between Facets of Psychopathy and Well-Being

According to the *Stress-Attenuation Model of Coping* (Billings & Moos, 1981), coping is a crucial resource in dealing with distressing circumstances as it can dramatically diminish the negative effects of stress. Most widely used coping models consist of a problem/task-focused style, an emotion-focused style, and an avoidance coping style. *Problem/Task-focused style* indicates that the person deals actively with a problematic situation in order to change it, such as making a specific plan. *Emotion-focused style* is one in which the main aim is to gain control over the negative emotions arising from distressing circumstances such as daydreaming about a better time (Billings & Moos, 1981; Endler & Parker, 1994). Finally, *avoidance coping style* that includes disregarding the resource of stress by engaging in other activities such as watching TV or shopping (Endler & Parker, 1994; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). A general consensus in the literature about coping styles tells us that active coping strategies are more effective compared to the styles based on emotion regulation or avoidance (e.g. Billings & Moos, 1981; Brissette, Scheier, & Carver, 2002).

Studies about psychopathy and coping styles show that psychopathy was negatively correlated with task-focused coping and was positively related to avoidance coping, emotion-focused coping, and confrontive coping strategies (Birkás et al., 2016; Hasking, 2007). Therefore, psychopaths utilize ineffective coping styles when faced with distress, which is in accordance with their egocentric, aggressive, and impulsive characteristics. However, recent research also found some differences between PP and SP in terms of preferences of coping styles. Among adolescents, SP was shown to predict coping through substance use more than PP (Gillen, Barry, & Bater, 2016). Also, Campbell and Elison (2005) revealed that PP predicted reliance only on the coping strategies of attacking others and avoidance while SP additionally predicted attacking self and withdrawal. Since there is limited research investigating coping differences between PP and SP, further empirical support with different measurements of coping is required.

Based on these findings in the literature, it can be inferred that people with psychopathic personality traits are likely to rely on maladaptive coping styles while dealing with distressing situations and that they have poor psychological well-being. Moreover, a comparison of the two facets is likely to yield a differing level of adaptiveness in the sense that PP will be relatively more effective in coping and will be related to higher levels of psychological well-being compared to SP. In summary, we anticipate that coping styles would be a mediator between PP-SP and psychological well-being (see in Fig. 1). This study is among a limited number of studies assessing the multidimensional nature of psychopathy despite the recent call for more research into the different facets of psychopathy (e.g. Furnham et al., 2013; Muris et al., 2017; Rauthmann & Kolar, 2012; Smith & Lilienfeld, 2013; Zeigler-Hill & Vonk, 2015). To the best of the authors' knowledge, this is the first study to do this in the context of coping and well-being.

## Method

### Participants

Before the study commenced, ethical approval was obtained from the University Ethical Committee. Convenient sampling was used and informed consent forms were given to the participants. Two hundred and ninety seven participants completed either the online ( $n = 174$ ) or paper-pencil ( $n = 123$ ) versions of the questionnaire (62% female and 38% male). The university students who volunteered to be a participant in the study completed paper-pencil version of the questionnaire. Also, a link for the online version of the questionnaire was posted in social media platforms. The age range was 18 to 65 years ( $M = 34.55$ ,  $SD = 12.83$ ) and approximately 30% of the participants were postgraduate students, almost 48% attended university, and the remaining participants were high school graduates (%19), and middle school graduates (%2).

### Measures

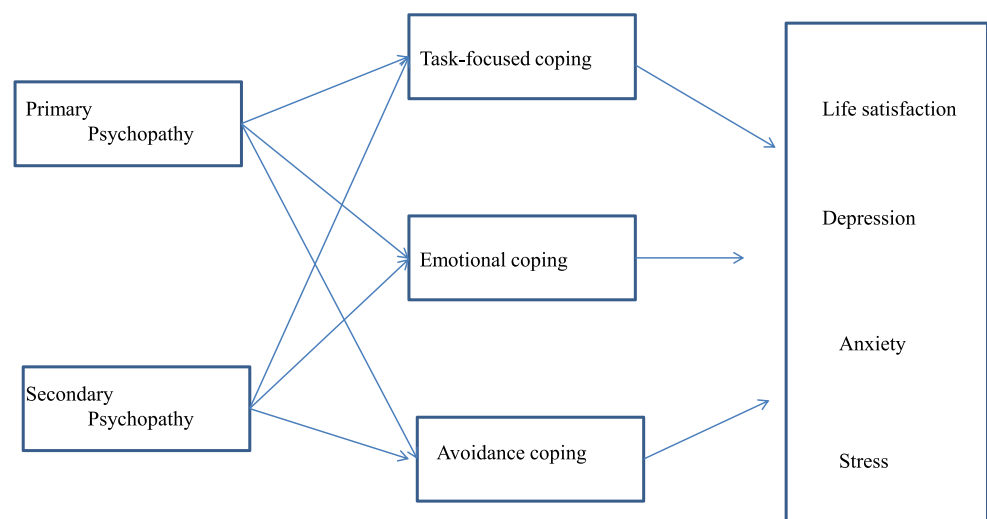
#### Short Demographic Information Form

The demographic information form consisted of questions about age, gender, and education level of the participants.

#### Levenson's Self-Report Psychopathy Scale (LSRP)

This inventory was developed by Levenson et al. (1995) for measuring sub-clinical psychopathy and includes 26 items (16 for PP and 10 for SP). Some example items include; "Success is based on survival of the fittest", "I find myself in the same kinds of trouble, time after time". Responses range from 1 (Strongly Disagree) to 4 (Strongly Agree) on a 4-point Likert scale with a lowest possible score of 26 and a highest of 104. High scores indicate higher levels of psychopathy.

Fig. 1 Proposed model



Standardized version of the scale to the target language (Engeler, 2005) was used in this study with Cronbach's Alpha for the total scale equal to .83 (.85 for PP and .78 for SP).

### Coping Inventory for Stressful Situations (CISS)

This inventory was developed by Endler and Parker (1994) for measuring one's preferred type of coping with 48 items including task-focused, emotion-focused, and avoidance coping styles. A 5-point Likert scale from 1 (Not at all) to 5 (Very much) was used. The scores range from 16 to 80 for each of the three subscales, with higher scores reflecting a stronger preference for a particular coping style. The standardized version of the scale to the target language was used (Boysan, 2012), which has good psychometric properties. In this study, Cronbach's Alpha for the total scale was .91 (.92 for task-focused, .87 for emotion-focused, and .88 for avoidance coping).

### Satisfaction with Life Scale (SWLS)

This five-item inventory was developed by Diener, Emmons, Larsen, and Griffin (1985) measuring global life satisfaction. A 7-point Likert scale from 1 (Strongly Disagree) to 7 (Strongly Agree) was used with higher scores indicating greater life satisfaction. The standardized version to the target language was used in this study, which has a Cronbach's Alpha of .86 (Şimşek, 2011).

### Depression Anxiety and Stress Scale (DASS)

This inventory, by Lovibond and Lovibond (1995), measures depression, anxiety, and stress with 42 items using a 4-point Likert scale from 0 (Never) to 3 (Most of the time) with higher scores signifying higher levels of depression, anxiety, and/or stress. Standardized version to the target language was used in this study (Akin & Çetin, 2007) with Cronbach's Alpha of .96 for the total scale, .93 for depression, .88 for anxiety, and .87 for stress.

### Data Analysis

Descriptive statistics and correlations among the variables of interest were computed. In order to test the proposed model, a path analysis with the maximum likelihood estimation in IBM SPSS AMOS 21.0 was applied. The goodness of fit of the model was evaluated according to chi-square statistics, CMIN/df, root-mean square error of approximation (RMSEA), comparative fit index (CFI), and goodness of fit index (GFI) (Anderson & Gerbing, 1988; Hu & Bentler, 1999; Kline, 1998). In the proposed model, nine composite scores (primary psychopathy, secondary psychopathy, task-focused

coping, emotional coping, avoidance coping, life satisfaction, anxiety, depression, stress) were calculated by taking the sum of the items. In order to test both direct and indirect effects between the variables, bootstrap method was used. This method was recommended by Shrout and Bolger (2002) to evaluate mediation for small to moderate sample sizes. By using bootstrap method, it is possible to get the most accurate confidence intervals for indirect effects (MacKinnon, Lockwood, & Williams, 2004). In other words, since the indirect effect estimates generally do not follow a normal distribution, confidence intervals and standard error estimates will not be accurate (MacKinnon et al., 2004; Shrout & Bolger, 2002). Using bootstrap method will deal with mediation problems in testing both direct and indirect effects (Shrout & Bolger, 2002). In the proposed model, the effects of task-focused coping, emotional coping, and avoidance coping between two facets of psychopathy (primary and secondary) and well-being (life satisfaction, anxiety, depression, and stress) was tested by adopting the Bootstrap estimation procedure in Amos 21.0 (a bootstrap sample of 1000 was specified).

### Results

Means, standard deviations, reliabilities, and inter-scale correlations for the measured variables are shown in Table 1. In order to observe the group differences among the major study variables according to gender, an independent samples t-test was conducted. The results showed significant differences between men and women for emotion-focused coping, avoidance coping, anxiety and stress scores. According to the results, women ( $M = 40.44$ ,  $SD = 12.80$ ) used emotion-focused coping more than men ( $M = 37.12$ ,  $SD = 9.29$ ),  $t(295) = 2.58$ ,  $p < .05$  and women ( $M = 42.64$ ,  $SD = 13.28$ ) also used avoidance coping more than men ( $M = 38.19$ ,  $SD = 12.78$ ),  $t(295) = 2.85$ ,  $p < .01$ . As expected, women ( $M = 5.76$ ,  $SD = 5.27$ ) had higher anxiety scores compared to men ( $M = 4.39$ ,  $SD = 4.40$ ),  $t(295) = 2.42$ ,  $p < .05$  and women ( $M = 10.45$ ,  $SD = 7.80$ ) had higher stress scores compared to men ( $M = 8.55$ ,  $SD = 6.37$ ),  $t(295) = 2.29$ ,  $p < .05$ .

In order to test the proposed model and the significance of the mediating effects of task-focused coping, emotion-focused coping, and avoidance coping, the nonparametric Bootstrap procedure in AMOS 21.0 was used. Specifically, 1000 Bootstrap samples were generated using random sampling with the replacement of the data set ( $N = 297$ ). Composite scores for each nine variable were used in the model. Since gender showed significant differences for emotion-focused coping, avoidance coping, anxiety, and stress, gender was included in the model as a control variable. Model fit was assessed using several fit indices as suggested by Kline (1998). The initial test of the measurement model, including full mediation, resulted in a poor fit to the data ( $\chi^2 = 62.79$ ,  $\chi^2/$

**Table 1** Means, standard deviations, reliabilities, and inter-scale correlations for measured research variables

	M	SD	1	2	3	4	5	6	7	8	9
1. Primary Psychopathy	32.93	12.66	(.85)								
2. Secondary Psychopathy	22.62	5.91	.51***	(.78)							
3. Task focused coping	50.79	14.69	-.47***	-.51***	(.92)						
4. Emotional coping	39.18	11.69	-.03	.33***	.02	(.87)					
5. Avoidance coping	40.95	13.24	.06	.39***	.19**	.43***	(.88)				
6. Life satisfaction	22.93	6.66	-.36***	-.47***	.42***	-.29***	-.04	(.86)			
7. Depression	5.61	6.01	.05	.34***	-.08	.58***	.31***	-.45***	(.93)		
8. Anxiety	5.24	4.91	.07	.28***	.01	.58***	.35***	-.28***	.74***	(.88)	
9. Stress	9.73	7.33	.18**	.37***	.01	.54***	.34***	-.31***	.62***	.66***	(.88)
10. Age	34.55	12.83	.02	-.28***	.01	-.20***	-.31***	.13*	-.22***	-.15*	-.19**

Note. N = 297

$p^* < .05$ ,  $**p < .01$ ,  $***p < .001$ .

$df = 7.85$ ,  $p = .00$ ,  $GFI = .96$ ,  $CFI = .96$ ,  $RMSEA = .15$ ) (Table 2). Based on the modification indices (Hooper, Coughlan, & Mullen, 2008), five direct paths were included (PP to stress, life satisfaction, and depression; SP to stress and life satisfaction), which improved the model ( $\chi^2 = 7.09$ ,  $\chi^2/df = 2.37$ ,  $p = .07$ ,  $GFI = .99$ ,  $CFI = .99$ ,  $RMSEA = .07$ ). Therefore, the authors were able to obtain a revised model with good fit to the data, as evidenced by a significant chi-square difference test ( $\Delta\chi^2 = 55.7$ ,  $p < .001$ ) (see Table 2). Path coefficients of the relationships between key variables are given in Fig. 2. Standardized indirect, direct, and total effects of PP and SP on three types of coping styles, stress, anxiety, depression, life satisfaction and their associated 95% confidence intervals are displayed in Table 3.

As seen in Fig. 2, the paths leading from both PP and SP to task-focused coping, emotion-focused coping and avoidance coping were significant. In the model, PP had negative relationships with the adaptive task-focused coping  $\beta = -.29$  ( $p < .001$ ), the maladaptive emotion-focused  $\beta = -.25$  ( $p < .001$ ) and avoidance coping styles  $\beta = -.18$  ( $p < .01$ ). Differently, SP had a negative relationship with the adaptive task-focused coping  $\beta = -.36$  ( $p < .001$ ), but positive relationships with the maladaptive emotion-focused  $\beta = .45$  ( $p < .001$ ) and avoidance coping styles  $\beta = .48$  ( $p < .001$ ). These findings indicated that SP is more maladaptive compared to PP in

terms of the types of coping styles used, which was in parallel with the expectations.

Also, for PP, the estimated parameters indicated that a direct path for stress  $\beta = .14$  ( $p < .01$ ) and life satisfaction was significant  $\beta = -.13$  ( $p < .01$ ), which showed task-focused coping, emotion-focused coping and avoidance coping were partial mediators between PP and outcome variables (life satisfaction and stress). However, the direct effect of PP to depression was not significant ( $\beta = -.05$ ,  $p = .24$ , 95% CI [-.12, .03]) while the indirect effect of PP to depression was significant ( $\beta = -.12$ ,  $p < .01$ , 95% CI [-.19, -.04]), which supports full mediation between PP to depression through task-focused, emotion-focused and avoidance coping styles.

However, while the direct paths from SP to stress  $\beta = .19$  ( $p < .01$ ) and life satisfaction  $\beta = -.22$  ( $p < .01$ ) were significant, indirect paths from SP to stress  $\beta = .20$  ( $p < .01$ ) and life satisfaction  $\beta = -.16$  ( $p < .01$ ) were also significant showing a partial mediation effect of task-focused coping, emotion-focused coping and avoidance coping styles on outcome variables (life satisfaction and stress). For anxiety and depression, indirect effects of SP on outcome variables were stronger than other variables (anxiety,  $\beta = .20$ ,  $p < .01$ ; 95% CI [.18, .34]); depression,  $\beta = .35$ ,  $p < .01$ ; 95% CI [.26, .45]), which supports full mediation of coping styles.

**Table 2** Comparison of Hypothesized Model and Modified Model

Model	$\chi^2$	$df$	$\chi^2/df$	$p$	CFI	IFI	GFI	RMSEA
Hypothesized model	62.79	8	7.85	.00	.96	.96	.96	.15
Modified hypothesized model	7.09	3	2.37	.07	.99	.99	.99	.07

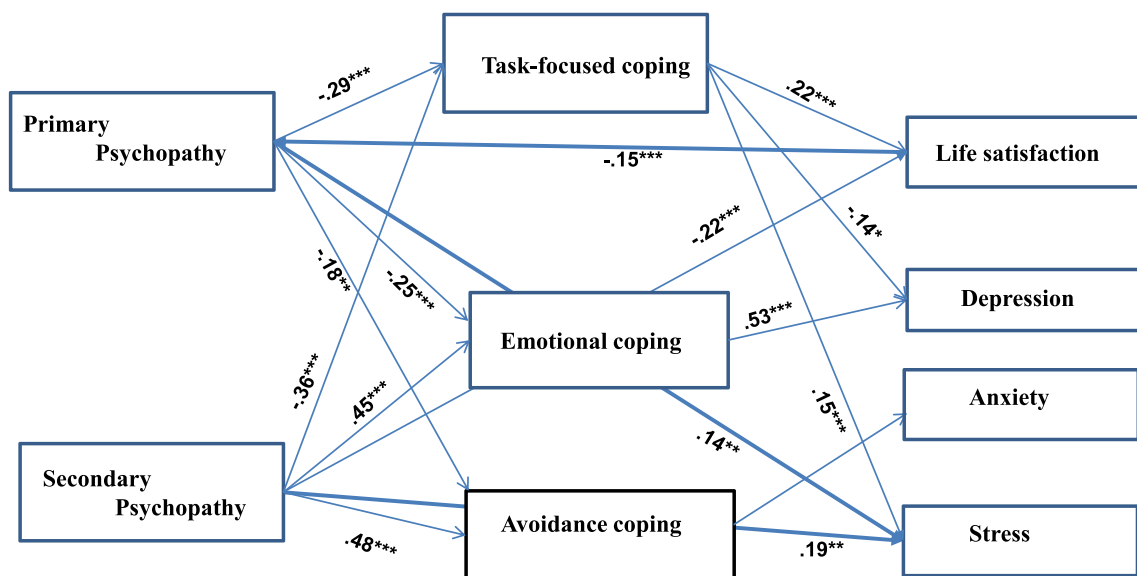
Note. Modified hypothesized model: Five direct paths were included from PS to stress, to life-satisfaction, and to depression, SP to stress and to life satisfaction

**Table 3** Summary of Mediation Results for the Model (Standardized Regression Weights are given for 1000 Bootstrapped Samples)

Independent variable	Mediating variable	Dependent variable	Effect of IV on M	Effect of M on DV	Direct effects	Indirect effects	Total effects
PP	TFC	Stress	-.29**	.15*	.14**	-.09**	-.02
		Anxiety		-.03	-	-.06**	-.14**
		Depression		-.14**	-.05	-.06**	-.16**
		Life Sat.		.22**	-.15**	-.01	-.17**
PP	EC	Stress	-.25**	.47**			
		Anxiety		.52**			
		Depression		.53**			
		Life Sat.		-.29**			
PP	AC	Stress	-.18**	.02			
		Anxiety		.12**			
		Depression		.12*			
		Life Sat.		.14*			
SP	TFC	Stress	-.36**		.19**	.20**	.36**
		Anxiety			-	.26**	.31**
		Depression			-	.35**	.35**
		Life Sat.			-.22**	-.16**	-.37**
SP	EC	Stress	.45**				
		Anxiety					
		Depression					
		Life Sat.					
SP	AC	Stress	.48**				
		Anxiety					
		Depression					
		Life Sat.					

Note. PP = Primary Psychopathy, SP = Secondary Psychopathy, TFC = Task-focused coping, EC = Emotional coping, AC = Avoidance coping

\* $p < .05$ , \*\* $p < .01$ , \*\*\*  $p < .001$



**Fig. 2** Significant standardized regression weights were given. \* $p < .05$ , \*\* $p < .01$ , \*\*\*  $p < .001$

## Discussion

Sub-clinical psychopaths often manage to achieve success in society while posing a substantial threat to the physical and psychological well-being of others in various ways such as engaging in theft (Lyons & Jonason, 2015), infidelity, aggression, and sexual harassment (Muris et al., 2017). According to the *Dual-Process Model* (Hall & Benning, 2006), psychopathy comprises of two etiologically distinct facets and people may obtain high/low scores on these two facets, which may explain differences among psychopaths in terms of adaptiveness. In this study, this difference was investigated in the context of coping and well-being and as expected, it was found that PP was relatively less maladaptive in terms of coping style preference and had higher levels of psychological well-being in comparison to SP.

Azizli et al. (2016) found that sub-clinical psychopathy predicted misconduct behaviors including drug abuse, criminality, driving misbehavior, bullying, harassment, and opposition to authority. The authors suggested that the reason for engaging in these kinds of behaviors might be related to individuals' proneness to boredom. So, people with high levels of sub-clinical psychopathy may use inappropriate means in order to compensate for their strong need for stimulation. This is in parallel with the current study's finding that SP is related to the utilization of more maladaptive coping styles compared to PP since the SP facet contains features like impulsivity, susceptibility to boredom, low self-control, and a firm need for stimulation (Hare & Neumann, 2008). Specifically, these characteristics may be increasing tendency of people with high levels of SP to choose maladaptive ways for dealing with stressful situations, whereas the callousness and higher emotional stability (Hare & Neumann, 2008) characterizing PP may act as protector factors preventing use of maladaptive coping styles. Also, the fact that people with psychopathic traits possess low levels of moral reasoning skills and their tendency for moral disengagement may lead to them seeking unethical methods of stimulation (Azizli et al., 2016; Egan, Hughes, & Palmer, 2015). This is especially evident in the negative relationship between psychopathy and prosocial tendency (Wertag & Bratko, 2019), moral values such as kindness, nurturance, justice, loyalty, and respect, among many others, and in disregard for collective interests (Jonason, Strosser, Kroll, Duineveld, & Baruffi, 2015). Moreover, psychopathic individuals gain pleasure when others experience a misfortune or failure (James, Kavanagh, Jonason, Chonody, & Scrutton, 2014). These findings imply that people who have psychopathy would try to overcome their negative feelings by harming other people, so teaching these individuals how to use adaptive coping styles as a way of dealing with stress would help them to alleviate their boredom in a healthy and non-destructive manner.

As age increases, psychopathy scores generally decrease. It was found that age had a negative relationship with SP, which

may indicate that older participants possess lower levels of SP, thanks to lower levels of negativity in comparison to younger participants. Thus, clinical prevention and intervention programs that are aimed at ameliorating the psychological well-being of psychopaths would result in reduction of their psychopathic tendencies and this would be beneficial for the society as a whole. In parallel with the findings, higher usage of emotion-focused coping style for SP might be related to SP's higher level of neuroticism (Durand, 2016) and negative emotionality (Hicks & Patrick, 2006) as it was shown that people who feel pessimistic, depressed, or helpless are more likely to rely on emotion-focused coping (Cheng, 2001). Therefore, increasing their psychological well-being would encourage psychopathic individuals to use adaptive coping styles.

The current study has some limitations. First, the study used cross-sectional design from which it is not possible to imply causation. Additionally, mediation models using correlational data can be controversial (Maxwell et al., 2011). In future studies, researchers may consider conducting longitudinal design in order to detect causality. Second, during data collection both paper-pencil and online versions of the questionnaire were used. Thus, using two different methods for data collection might be another limitation of this study. In future studies, it would be beneficial to replicate the study findings by using only one data collection method. Third, the use of a self-report inventory in the assessment of psychopathy could be a limitation since the responses to the questionnaire might be biased due to social desirability. More objective techniques such as structured interviews could be used in future investigations. Although coping is conceptualized as a dispositional notion in this study, future studies may consider using the concept of coping flexibility, which indicates one's ability to choose the appropriate coping strategy that fits the stressful situation. For instance, Cheng (2001) argued that different circumstances require unique coping strategies, that there is not an individual coping style effective in every stressful situation. More specifically, task-focused coping is deemed more effective in controllable distress while emotion-focused coping is seen as being more adaptive in dealing with uncontrollable circumstances. Therefore, individuals should be able to switch between different coping styles according to the requirements of the specific situation in order to overcome distress effectively, which in turn increases psychological well-being (Cheng, 2001). Researchers interested in an even more fine-grained analysis of psychopathy facets may utilize other conceptualizations such as that suggested by Hare and Neumann (2008), dividing psychopathy into *Interpersonal*, *Affective*, *Lifestyle*, and *Antisocial* facets. While rather similar to the two-factor conceptualization of psychopathy used in the current study, the four factors may give more opportunity to detect potential nuances among the facets.

## Conclusion

In conclusion, the findings supported the hypothesis of the study about the difference between PP and SP in terms of their relationship with task-focused, emotion-focused, and avoidance coping styles and with psychological well-being. According to the study, SP is related to more maladaptive coping styles compared to PP. Moreover, coping styles may serve as a primary mechanism that leads to better psychological well-being. Particularly for SP, a preference for more maladaptive coping styles may increase anxiety and depression levels. Therefore, psychopaths, especially those with high level of SP, would benefit from interventions teaching adaptive coping styles.

**Data Availability** The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in the study involving human participants were in accordance with the ethical standards of Bahçeşehir University Ethics Committee.

**Informed Consent** Informed consent was obtained from all individual participants involved in the study.

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