Adolescent Coping with Peer Exclusion:

A Person-Centered Analog Approach

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Abstract

Peer exclusion is a significant stressor that can have detrimental effects on adolescents, depending on how they cope with such exclusion. As adolescents rarely rely on one strategy when coping with exclusion, the present study relied upon a person-oriented approach in order to identify clusters of adolescents that share their pattern of coping with peer exclusion. Thereby, we focused on their coping responses to standardized situations of peer exclusion. Further, we examined between-cluster differences in their psychosocial adjustment and perceived parenting. Swiss adolescents ($N = 338$) completed self-report questionnaires, where coping responses were assessed using an analog methodology with standardized vignettes. A cluster-analytic procedure yielded four coping clusters: a self-reliant cluster, an active cluster, a helpless-avoidant cluster, and a cluster of low copers. Adolescents from the helpless-avoidant cluster generally reported the lowest scores for psychosocial adjustment, less parental autonomy-support and more psychological control, whereas the opposite was the case for the self-reliant cluster.

KEYWORDS: peer exclusion, coping, parenting, adolescence.

Highlights:

- We examined profiles of coping with peer exclusion in adolescence.

- We identified four coping clusters: a self-reliant cluster, an active cluster, a helpless-avoidant cluster, and a low coping cluster.

- Between-cluster differences were found in terms of psychosocial adjustment and perceived parenting.

Introduction

Peer exclusion refers to the act of being left out, ignored or rejected by peers or by the peer group (Mulvey et al., 2017). Even though peer exclusion is not always intended to cause psychological harm, decades of research (e.g., Hartgerink et al., 2015; Williams, 2007) indicates that social exclusion, including not having positive and close friendships, not belonging to desired or valued peer groups, or being directly victimized and rejected by peers, has negative associations with adolescents' psychosocial well-being. Adolescents who report being rejected by their peers have higher levels of depression, anxiety, and loneliness and lower levels of self-esteem and perceived self-competence (e.g., Di Giunta et al., 2018; Platt et al., 2013). Some studies even show that social exclusion triggers similar physiological mechanisms and cortex activations as physical pain (Eisenberger, 2012; MacDonald & Leary, 2005), suggesting that social exclusion literally is a physically painful experience. Further, being excluded chronically also may lead to feelings of unworthiness, alienation and helplessness (Riva et al., 2017) and may bring about a process of desensitization, such that one benefits less from future socially rewarding experiences (Moller et al., 2010; Vanhalst et al., 2015). Finally, peer exclusion during childhood and adolescence has been found to foreshadow considerable psychological and social difficulties in adulthood (e.g., Bagwell et al., 1998; Schacter et al., 2018), suggesting that peer exclusion may have negative long-term consequences. Work on peer victimization (i.e., the experience of being the frequent target of physical, emotional, or psychological harm by peers) revealed similar negative long-lasting consequences that extend into adulthood (McDougall & Vaillancourt, 2015).

The poorer outcomes for adolescents experiencing peer exclusion are even more worrying because it is a common phenomenon. Using a daily diary methodology, Williams et al. (2001) observed that their participants reported an experience of social exclusion about once a day, which would add up to approximately 25,000 rejections in an average lifetime. This may occur for many reasons. For instance, adolescents exclude their peers for being unattractive, for being aggressive, or in order to preserve group loyalty (Leets & Sunwolf, 2005). Hence, given the high frequency of social exclusion in adolescents' day-to-day lives, it is important to understand why adolescents respond differently to situations of social exclusion. Although almost all humans experience social exclusion negatively (DeWall & Bushman, 2011), people do differ in their way of dealing with social exclusion (Bernstein & Claypool, 2012). For example, people higher in rejection sensitivity have a stronger negative reaction and can withdraw or act out with aggression (e.g., Ayduk et al., 2008; Gardner & Zimmer-Gembeck, 2018). Similarly, individuals with more symptoms of depression or anxiety have more negative reactions as well (Zimmer-Gembeck et al., 2018). Such findings suggest that adolescents will vary in

their ways of coping with peer exclusion. Research on peer victimization also indicates that adolescents' coping strategies play an important role in the understanding of peer victimization outcomes (Spiekerman et al., 2020). Given that coping can be taught and practiced in school-based or clinical programs, understanding these coping differences would be useful for developing or improving programs focused on helping adolescents to respond to social challenges, such as exclusion and rejection, with the aim of interfering in the development of rejection sensitivity and socioemotional maladjustment (Stanley & Arora, 1998; Zimmer-Gembeck, 2015).

Adolescents' Coping with Peer Exclusion

To conceptualize coping, we drew upon the motivational theory of coping (Skinner & Wellborn, 1994; Skinner & Zimmer-Gembeck, 2007, 2016). This theory defines coping as the capacity of people to "mobilize, guide, manage, energize, and direct their behavior, emotion, and orientation, or how they fail to do so" (Skinner & Wellborn, 1994, p. 113). Thus, coping involves the way a person would react in response to a stressful situation, such as a situation of peer exclusion. According to the motivational theory of coping, it is important to consider whether stressors are appraised as a challenge or a threat, as these appraisals would help to account for particular coping responses (Skinner & Zimmer-Gembeck, 2007, 2016). Challenge coping strategies are viewed as optimistic, active, approach-oriented, and aimed at restoring well-being or changing the situation. Threat coping strategies are viewed as pessimistic, involving problem avoidance or passivity, and are often linked to anxiety, depression, and other negative, long-term consequences (Skinner & Wellborn, 1994; Skinner & Zimmer-Gembeck, 2007, 2016). The motivational theory of coping identifies twelve families of coping responses, with six linked to appraising stress as a challenge and six linked to appraising stress as a threat (Skinner et al., 2003). These coping strategies and their definitions are provided in Table 1.

The distinction between these two general types of challenge and threat coping provides conceptual clarity by organizing the many ways that individuals cope with stress, but the theory does not imply that individuals only use strategies either from the challenge or from the threat category (Skinner & Zimmer-Gembeck, 2016; Zimmer-Gembeck et al., 2013). A person-centered approach may be particularly suitable to identify specific patterns of coping with stress, as such an approach adopts a holistic view where each person is characterized by a unique constellation along a number of psychological dimensions (von Eye & Bogat, 2006). Rather than focusing on these particular psychological dimensions and their relations with other variables, a person-centered approach focuses on the patterning of these underlying dimensions within a person, and then seeks to identify a number of typical patterns that can describe subgroups of individuals that share a pattern of characteristics.

Past studies, using person-oriented approaches, identified coping profiles that cut across categories, and often included profiles characterized by both challenge and threat forms of coping, illustrating its relevance in the context of the study of coping with stress. For instance, in a quantitative study on university students' habitual way of coping with stressful situations, Doron et al. (2014) described four profiles of coping with stressful situations. Whereas adaptive copers particularly reported relying upon challenge coping responses (e.g., positive reappraisal and refocusing) and avoidant copers especially relied on threat coping responses (e.g., self-blaming, catastrophizing, and ruminating), they also found a cluster of high copers, who relied upon a mixture of adaptive and maladaptive strategies, and a cluster of low copers, who reported using relatively few coping strategies. Similarly, a recent quantitative study among adolescents (van den Heuvel et al., 2020) also documented four profiles, thereby focusing on their cognitive coping strategies in response to stressful life events: whereas one group relied primarily upon maladaptive strategies (e.g., catastrophizing, self- and other-blaming), they also found a group of adolescents relying upon a range of both adaptive and maladaptive strategies (e.g., reappraisal and acceptance, but also blaming and rumination), and two groups who reported using few strategies for coping with stressful life events. Finally, in a recent quantitative study focusing on coping with ethnic-racial discrimination among Latino/a adolescents specifically, McDermott et al. (2019) found three profiles of coping: in addition to a proactive profile (e.g., responding through self-assertion) and a passive profile (i.e., not responding, mostly ignoring), they also found evidence for a confrontative cluster, who relied upon a mixture of adaptive (e.g., working hard) and maladaptive strategies (e.g., rudeness). Taken together, even though the precise cluster solutions differed somewhat throughout different studies, all studies illustrate the importance of studying coping profiles, in order to obtain a more comprehensive understanding of differences in individual functioning in response to stressful situations.

Importantly however, in most of the previous studies, coping was assessed using participants' responses to self-reported personal experiences of negative or unpleasant events. Typically, participants are thereby asked to describe a stressful situation, in order to assess their way of coping with the stressor they described (Stone et al., 1991). The previously discussed person-centered studies (Doron et al., 2014; van den Heuvel et al., 2020) relied upon adolescents' self-reports about how they generally respond to stressful events (e.g., during the last two months), without considering the intensity or nature of these stressors. However, this method has been criticized for its lack of standardization, as the nature and intensity of a self-identified or unidentified stressor may affect participants' coping strategies employed in the self-reported stressful situation (Zimmer-Gembeck & Skinner, 2011). For instance, past research found that adolescents' responses and its correlates depend in part on

the nature of the stressor (e.g., a peer-related vs. parent-related event; Zimmer-Gembeck et al., 2009). The use of an analog methodology with standardized vignettes may be a powerful alternative to address this problem, as such an approach involves the presentation of carefully constructed descriptions of standardized situations (Aguinis & Bradley, 2014). The analog manipulation, then, allows for the exploration of adolescents' responses in a highly controlled manner that is comparable across participants (e.g., Bjorck & Byron, 2014). In addition, past research has shown that participants' responses to vignettes strongly resemble their responses to real life situations (Evans et al., 2015). Although past research successfully used an analog methodology to study coping processes (e.g., Bjorck & Byron, 2014; Zimmer-Gembeck et al., 2009), as far as we are aware, our study is the first to use a person-centered approach to identify clusters of adolescents that share a typical pattern of coping with peer exclusion specifically, thereby making use of an analog methodology.

Associations with Perceived Parenting

A further goal of this study was to examine differences between coping profiles in terms of perceived parenting. It is likely that different patterns of coping with peer exclusion are associated with adolescents' parenting history, as past research found that several features of the parent-child relationship are linked to adolescents' peer experiences and social expectations in important ways (e.g., Brown & Bakken, 2011). In Baumrind's seminal work (1971), three parenting styles have been distinguished (authoritative, authoritarian, permissive). More recent work typically focus on discrete dimensions that underlie these parenting styles, as it provides more specificity for understanding the effects of parenting (Smetana, 2017; Soenens, Vansteenkiste & Beyers, in press). Here, we focused on two adaptive parenting dimensions (parental responsiveness and autonomy support) and two maladaptive parenting dimensions (psychological control and overprotection).

Parental responsiveness to emotional distress refers to the degree to which parents react in a sensitive way when a child is upset or distressed. Parental responsiveness would be important for children's coping development as it would foster their prosocial behavior and it would nurture the development of the necessary skills to cope with their negative emotions (Davidov & Grusec, 2006). In line with this, Kanat-Maymon and Assor (2010) demonstrated that perceived maternal responsiveness predicted adolescents' empathic concerns for others in need, suggesting that they tend to act more constructively in challenging social situations. In addition, and particularly relevant for our study, parental knowledge of what comforts their child in a situation of distress has been found to help adolescents cope more effectively with their own distress (Vinik et al., 2011).

Autonomy-supportive parenting involves encouraging children to act upon personally endorsed values, goals, and interests (Soenens et al., 2007), and is characterized by parental empathy, choice provision, and the

encouragement of adolescents' volitional functioning. Parental autonomy support has been linked to more adaptive psychosocial functioning (e.g., Soenens & Vansteenkiste, 2010). Further, adolescents with more autonomy-supportive parents use more often active coping strategies in stressful situations (Seiffge-Krenke & Pakalniskiene, 2011; Zimmer-Gembeck & Locke, 2007). By being autonomy-supportive, parents would encourage their children to develop skills for regulating emotions and handling intrapersonal and interpersonal difficulties adaptively (Klink et al., 2008), and, hence, they would be more likely to adopt challenge coping strategies when experiencing stressful situations.

Parental psychological control refers to parental behaviors that are experienced as intrusive and manipulative of children's thoughts and feelings (Barber, 1996). This may involve the use of guilt induction, manipulation, and threatening with punishments in order to make their children feel, think, or act in parent-imposed ways (Barber, 1996; Soenens & Vansteenkiste, 2010). Psychologically controlling parenting has considerable negative consequences for adolescents (Scharf & Goldner, 2018), and this could extend to having influence on coping strategies. Indeed, in one study, adolescents with more controlling parents used less effective coping strategies (e.g., less problem-solving; Dusek & Danko, 1994). In addition, adolescents with more controlling parents are more relationally aggressive with peers (Soenens et al., 2008), and report more oppositional behavior when disagreeing with parents (Van Petegem et al., 2017, 2019).

Finally, *parental overprotection* refers to parental protective behaviors that are excessive, considering the child's developmental level (Thomasgard et al., 1995). Overprotective parents tend to protect their children at any cost from all potential dangers, from negative emotions and failures, and from any kind of stressful situation (Parker, 1983). This is done by, for instance, solving children's problems without letting them try first, or by overly assisting them in everyday tasks (Brenning et al., 2017). Overprotection has been associated with more depressive and anxious symptoms in adolescents (Rousseau & Scharf, 2015; Van Petegem et al., 2020). Overprotected adolescents' social relations may suffer as well, because they feel more often alienated from their peers, and are more frequently socially excluded (e.g., Van Ingen et al., 2015). Further, parental overprotection would impede the possibility for adolescents to develop appropriate coping strategies, hence fostering the use of threat coping strategies for dealing with stressful situations (Parker, 1983; Segrin et al., 2015).

Associations with Psychosocial Adjustment

Differences in adolescents' way of coping may have important implications for their psychosocial adjustment (e.g., Zimmer-Gembeck & Skinner, 2016). Particularly relying upon challenge coping strategies for dealing with difficult situations may yield beneficial long-term consequences, as it may help young people to

gain autonomy, develop a sense of competence and self-confidence, and therefore would foster optimal development (Skinner & Wellborn, 1994; Skinner & Zimmer-Gembeck, 2016). To illustrate, Lo (2002) found a positive correlation between proactive coping strategies and self-esteem. Similarly, the use of active coping strategies was also found to be a protective factor against symptoms of anxiety and depression (Roohafza et al., 2014). By contrast, particularly relying upon threat coping strategies may put adolescents at risk for psychopathology, because of their rigid, disorganized, or derogatory nature (Skinner & Zimmer-Gembeck, 2016). In line with this, Undheim et al. (2016) found that adolescents with a higher level of depressive symptoms more often used avoidant coping strategies to deal with stressful situations. Similarly, Garnefski et al. (2002) found that the use of threat coping strategies (e.g., rumination, self-blame) was linked to more psychopathology, including symptoms of anxiety and depression. Finally, studies relying upon person-centered approaches (e.g., van den Heuvel et al., 2019) also indicate that adolescents who primarily rely upon threat-type coping strategies often reported the highest levels of maladjustment (e.g., more depressive symptoms).

Further, in this study, we also examined associations with adolescents' social adjustment (in terms of loneliness, social anxiety, and the quality of best friendship). First, it can be expected that adolescents who often engage in maladaptive coping are more likely to feel lonely, where loneliness is defined as a person's negative emotional response to a discrepancy between the desired quality and achieved quality of one's social network (Peplau & Perlman, 1982). Indeed, previous studies suggest that loneliness is related to a more frequent use of passive coping strategies (Vanhalst et al., 2012). In addition, chronically lonely youngsters are more likely to employ maladaptive coping strategies such as catastrophizing, self-blame, and rumination (Vanhalst et al., 2018). Further, we expected that different coping profiles would be linked to differences in social anxiety, which is defined as the anxiety that "occurs when people become concerned about how they are being perceived and evaluated by others" (Leary & Kowalski, 1997, p. 6). Although particularly common during adolescence (La Greca & Harrison, 2005), social anxiety may set adolescents at risk for psychopathology, including eating disorders (Wonderlich-Tierney & Vander Wal, 2010) and depression (Stein et al., 2001). This would be partly due to the greater use of maladaptive coping strategies, and in particular avoidant coping, among socially anxious adolescents (Wonderlich-Tierney & Vander Wal, 2010). Finally, we also expected differences in terms of adolescents' friendship's quality, as it has been proposed that friendships characterized by intimacy and social support (as opposed to conflict and contention) are important resources for coping successfully with stressful situations and major life transitions changes (Hartup & Stevens, 1999). In addition, adolescents' coping (especially in peer contexts) is likely to influence the quality of friendships significantly as well. For example, in

one study, it was found that the use of avoidant coping strategies may hinder the development of new friendships (Burgess et al., 2006). Taken together, adolescents' use of adaptive or maladaptive coping strategies is likely to be linked to indicators of both personal and social adjustment.

Aims of the Present Study

The overarching goal of the present study was to examine how different profiles of adolescents' coping with peer exclusion were related to their perceptions of parenting and to their personal and social adjustment. This is theoretically important, as such a profile-based approach to coping, thereby making use of standardized vignettes, may help gain a deeper insight into individual differences in adolescents' coping with peer exclusion, as different strategies may co-occur in unique ways; thereby, between-cluster differences in perceived parenting and psychosocial adjustment may help gain further insight into the unique characteristics of these specific profiles. Moreover, this is also clinically important, as the identification of different coping profiles may help guide interventions as to which coping strategies should be targeted in therapy (e.g., Hogendoorn et al., 2013).

The first aim of the study was to identify different clusters of adolescents' coping with peer exclusion. Coping was assessed using hypothetical vignettes presenting standardized situations of peer exclusion. Given that some coping strategies strongly co-occur, we first applied factor analysis to identify coping families that form more global coping composites. These composites were then subjected to a person-oriented analysis to identify clusters of adolescents with different profiles of coping. Drawing upon previous research (e.g., Doron et al., 2014), we expected that four coping profiles would appear. Specifically, we expected to find a cluster of adolescents reporting high challenge coping strategies only, a cluster of adolescents reporting relatively high scores for threat coping strategies only, a cluster reporting overall high scores (i.e., both challenge and threat coping), and a group of participants reporting low scores across all coping dimensions (i.e., low copers).

A second aim was to examine between-cluster differences in terms of perceived parenting. We expected that profiles characterized by high levels of challenge coping would report high levels of parental responsiveness and autonomy support. By contrast, we expected that profiles with high levels of threat coping would be linked with increased levels of psychologically controlling and overprotective parenting. A third and final aim involved examining between-cluster differences in psychosocial adjustment. We expected elevated levels of psychosocial maladjustment (i.e., lower self-esteem, more anxiety and depressive symptoms, more loneliness and less supportive interactions with the best friend) in the cluster of adolescents reporting relatively high scores for threat coping strategies only. We expected the highest levels of psychosocial adjustment in the cluster of adolescents reporting high challenge coping strategies only, as well as in the cluster of low copers, as past

research suggests that these adolescents are generally well-adjusted as well (e.g., Doron et al., 2014), likely because they perceive less stress in general.

Method

Participants and Procedure

The study took place in the French-speaking part of Switzerland, and was conducted in compliance with the ethical standards of the Swiss Society of Psychology (SSP). The participants were 338 adolescents (51.5% male), ranging in age between 13 and 17 ($M = 14.96$, $SD = 0.75$), who were in the last year of mandatory secondary schooling. Most of the participants were Swiss or had a double nationality (66.7%); the remaining participants were from other European countries (26.7%) or from non-European countries (1.6%). Further, 71.9% of the adolescents lived in traditional two-parent families, 26.6% of them had separated parents, and the remaining 1.5% had one deceased parent.

After obtaining parental consent and adolescents' assent, students completed questionnaires during two sessions in their classrooms. In the first session, they reported on their self-esteem, anxiety, depressive symptoms, loneliness, social anxiety, and their perceptions of their mother's and father's parenting. In the second session, approximately one-week later, they reported on the quality of the relationship with their best friend, and their coping reactions in response to three peer exclusion vignettes. The vignettes were developed by Zimmer-Gembeck and Nesdale (2013), but we slightly adapted them from the Australian to the Swiss context (i.e., a beach party became an unspecified party, they left their classroom instead of crossing campus, and friends were sending a message instead of an e-mail). After reading each vignette, adolescents were asked to imagine they were in the depicted situation, and then completed items to report how they would cope with that situation. The surveys were linked through an anonymized code. At the start of each session, participants were reminded about the anonymous treatment of the data and the voluntary nature of their participation. Almost all participants agreed to be involved in the study.

Prior to the current study, a pilot study was conducted in a sample of 65 adolescents in their last year of schooling ($M_{age} = 15.35$ years, 39% girls), in order to examine the validity of the vignettes. Participants rated whether they believed the vignettes were credible, and whether they believe the situation happens frequently to others of their age, using a 5-point Likert scale, ranging from 1 = *completely disagree* to 5 = *completely agree*. Further, they were allowed to provide additional written feedback with regards to the content of the vignettes. On average, participants rated the situations as credible ($M = 3.73$, $SD = 1.09$), and frequently happening ($M = 4.46$, $SD = 0.87$). Based on the written feedback, a few minor changes were made, mostly involving

formulations and simplifications. In the actual study, adolescents also rated the validity of the vignettes. First, they reported whether they would feel excluded and rejected in the depicted situations, using a 5-point Likert scale, ranging from 1 = *completely disagree* to 5 = *completely agree*. On average, participants reported they would feel excluded ($M = 3.86$, $SD = 0.98$) and rejected ($M = 3.73$, $SD = 1.04$). Second, we assessed whether they perceived the situations as credible, realistic, and as frequently happening. The same 5-point Likert scale was used. Results showed that the situations were perceived as credible ($M = 3.71$, $SD = 1.08$), realistic ($M = 3.75$, $SD = 1.08$), and common ($M = 4.40$, $SD = 0.71$). The final vignettes are presented in Table 2.

Measures

Coping strategies. We adapted and constructed items in order to assess how the adolescents would act in the depicted situations, thereby drawing upon the theoretical literature (e.g., Skinner & Zimmer-Gembeck, 2007) and existing questionnaires (e.g., Compas et al., 2001; Zimmer-Gembeck et al., 2016). Each of the twelve families of coping were assessed using two items, which yielded 24 items. The six families of challenge coping were problem-solving, accommodation, self-reliance, information-seeking, negotiation, and support-seeking. The six families of threat coping were isolation, opposition, escape, delegation, rumination, and helplessness. Responses were given on a 5-point Likert scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). As some coping strategies may be highly correlated, we conducted a Principal Component Analysis using Oblimin rotation on the 24 items, in order to gain insight into the scale structure. The scree plot suggested that a five-component solution was most appropriate. This solution explained 42.98% of the variance. Specifically, the analysis suggested two components of challenge coping: *active-challenge* coping (e.g., "I would think of a way to prevent this from happening again"; 8 items with factor loadings ranging between .36 and .71), which encompasses problem-solving, information-seeking, negotiation, and support-seeking, and *passive-challenge* coping (e.g., "I'd say to myself that everything will be fine"; 4 items, factor loadings between .47 and .79), which encompasses accommodation and self-reliance. Further, there were three components of threat coping: *helplessness* (e.g., "I'd be confused and I wouldn't know what to do"; 5 items with factor loadings between .52 and .84), encompassing rumination, helplessness, and one of the two items of delegation, *avoidance* (e.g., "I would avoid any situations that remind me of this event"; 4 items, factor loadings between .49 and .71), which encompasses isolation and escape, and *opposition* (e.g., "I'd look for a way to get back at them and to make them pay for what they did"; 3 items, factor loadings between .41 and .79), which encompasses opposition and the second item of the delegation subscale. We calculated averages across the respective items to produce five

composite coping scores, which demonstrated good internal consistency: $\alpha = .92$ for active-challenge coping, $\alpha = .88$ for passive-challenge coping, $\alpha = .93$ for helplessness, $\alpha = .84$ for avoidance, and $\alpha = .81$ for opposition.

Perceived parenting. Adolescents reported about their mother and their father separately, with items measuring responsiveness, autonomy support, psychological control, and overprotection. Item responses ranged from 1 (*completely disagree*) to 5 (*completely agree*). *Responsiveness* was assessed with the Child Report of Parent Behavior Inventory (Schaefer, 1965, e.g., "My mother/father is able to make me feel better when I am upset", 7 items). The scale demonstrated good internal consistency ($\alpha = .87$ for mother, $\alpha = .88$ for father). *Parental autonomy support* was assessed using the Perceived Parental Autonomy Support Scale (Mageau et al., 2015). The scale is composed of three subscales, each consisting of four items: choice provision (e.g., "My mother/father gave me many opportunities to make my own decisions about what I was doing"; $\alpha = .69$ for mother, $\alpha = .73$ for father), rationale for limits (e.g., "When my mother/father asked me to do something, she/he explained why she/he wanted me to do it."; $\alpha = .74$ for mother, $\alpha = .74$ for father) and acknowledging feelings (e.g., "My mother/father encouraged me to be myself"; $\alpha = .77$ for mother, $\alpha = .77$ for father). *Parental psychological control* was assessed using the Perceived Parental Autonomy Support Scale (Mageau et al., 2015). This scale was composed of three subscales as well, with four items each: threat to punish (e.g., "When I refused to do something, my mother/father threatened to take away certain privileges in order to make me do it"; $\alpha = .82$ for mother, $\alpha = .82$ for father), performance pressure (e.g., "My mother/father believed that, in order to succeed, I always had to be the best at what I did"; $\alpha = .74$ for mother, $\alpha = .74$ for father), and guilt induction (e.g., "My mother/father made me feel guilty for anything and everything"; $\alpha = .76$ for mother, $\alpha = .76$ for father). *Parental overprotection* was assessed using the 40-item Multidimensional Overprotective Parenting Scale of Kins and Soenens (2013; see also Brenning et al., 2017). The scale consists of two higher-order subscales: anxious overprotection (e.g., "My mother/father constantly warns me about bad things that could happen to me"; 30 items, $\alpha = .92$ for mother, $\alpha = .91$ for father), and ego-enhancing overprotection (e.g., "My mother/father brags about how good and smart I am"; 10 items, $\alpha = .73$ for the mother and $\alpha = .73$ for the father)

Personal adjustment. Measures of self-esteem, general anxiety symptoms, and depressive symptoms were included to assess adolescents' personal adjustment. For each variable, items were averaged to produce a composite score. *Self-esteem* was assessed using the five items of the general self-worth subscale of the Self-Perception Profile for Adolescents (Harter, 1988). Following Wichstrom (1995), the response format was adapted to a 5-point Likert-type scale, ranging from 1 (*completely disagree*) to 5 (*completely agree*). The scale demonstrated good internal consistency ($\alpha = .87$). *General anxiety symptoms* were assessed using general

anxiety subscale of the Screen for Child Anxiety Related Disorders (Birmaher et al., 1999; e.g., "People tell me that I worry too much"). Responses to the nine items ranged from 0 (*not true*) to 2 (*completely true*). The subscale demonstrated adequate internal consistency ($\alpha = .76$). *Depressive symptoms* were assessed using the Patient Health Questionnaire depression scale (Spitzer et al., 1999). Participants were asked to indicate how often they experienced affective, somatic, and cognitive symptoms of depression during the two weeks prior to each assessment. A sample item reads: "Feeling down, depressed, irritable, or hopeless". Responses to the eight items ranged from 0 (*never*) to 3 (*nearly each day*). The scale demonstrated good internal consistency ($\alpha = .79$).

Social adjustment. Measures of loneliness, social anxiety symptoms, and quality of the relationship with the best friend (i.e., support and negative interaction) were included to assess adolescents' social adjustment. For each measure, items were averaged to produce a composite score. *Loneliness* was assessed with 12 items from the Loneliness and Aloneness Scale for Children and Adolescents (Marcoen et al., 1987, e.g., "Making friends is hard for me"), using a Likert-type response format ranging from 1 (*completely disagree*) to 5 (*completely agree*). The scale demonstrated good internal consistency ($\alpha = .90$). *Social anxiety* was assessed using a short form (Nelemans et al., 2017) of the Social Anxiety Scale for adolescents (La Greca & Lopez, 1998). The scale consists of three subscales, each of them composed of four items: Fear of Negative Evaluation (FNE; e.g., "I worry about what others think of me"), Social Avoidance and Distress in new social situations or with unfamiliar peers (SAD-New; e.g., "I get nervous when I talk to peers I don't know very well"), and Social Avoidance and Distress that is more general or pervasive (SAD-General; e.g., "I'm quiet when I'm with a group of people"). Response options ranged from 1 (*never true*) to 5 (*totally true*). The subscales demonstrated good reliability: $\alpha = .89$ for the FNE, $\alpha = .85$ for the SAD-New, and $\alpha = .76$ for the SAD-General. The *quality of the relationship with the best friend* was assessed using the short form of the Network of Relationships Inventory (Furman & Buhrmester, 1985, 2010). Specifically, we assessed perceived support (e.g., "How often do you and this person go places and do things together"; 7 items) and negative interactions (e.g., "How much do you and this person get annoyed with each other's behavior"; 6 items) with a self-selected best friend of the same or opposite sex. Responses ranged from 1 (*never*) to 5 (*nearly always*). Both subscales demonstrated adequate internal consistency ($\alpha = .78$ for support and $\alpha = .79$ for negative interaction).

Statistical Analyses

Data analysis was conducted with SPSS 25. As 10.42% of the data were missing, we first performed Little's MCAR-test (Little, 1988), which yielded a normed χ^2 of 1.10, indicating that data were likely missing at random. Hence, the procedure of expectation-maximization (Schafer, 1997) was used to estimate missing data.

For the primary analyses, cluster analysis was used to identify groups of adolescents who reported similar patterns of coping with exclusion along the five composite coping strategy components. This was done using a two-step procedure (Gore, 2000). Specifically, coping scores were first standardized, and four outliers, which exceeded the limit of three standard deviations, were excluded from analysis. Then, we conducted Ward's hierarchical cluster analysis based on squared Euclidian distances. Using the scree plot of coefficients by stage and the dendrogram, we then determined the number of clusters (Yim & Ramdeen, 2015). In the second step, we performed a *k*-means iterative cluster analysis, thereby using the cluster means of the hierarchical clustering solution as initial centroids. To validate the cluster solution, a MANOVA was performed with the cluster membership as independent variable and the coping composite scores as the five dependent variables.

After identifying the clusters, we examined whether there were between-cluster differences in terms of perceived maternal and paternal parenting and personal and social adjustment. We thereby controlled for sex differences, as past research has documented sex differences in some of our study variables (e.g., Stanley & Arora, 1998). Four MANOVAs were conducted, each time using cluster membership and sex as fixed factors. The first MANOVA included perceived maternal parenting (in terms of responsiveness, autonomy-support, psychological control, and overprotection) as dependent variables, the second focused on perceived paternal parenting, the third MANOVA focused on personal adjustment variables (anxiety, self-esteem, depression), and the final on social adjustment (loneliness, social anxiety, and quality of the best friend relationship).

Results

Cluster Analysis

The method described above yielded a four-cluster solution as most appropriate. This four-cluster solution was superior to the two- and three-cluster solutions (which involved combining strongly different clusters) and to the five- and six-cluster solutions (which necessitated a substantially higher number of iterations before convergence, indicating a less adequate solution; Hartigan & Wong, 1979). Further, the MANOVA revealed that the four clusters differed significantly on all five coping dimensions, $F(15, 900) = 75.22$, $p < .001$, partial $\eta^2 = .53$, confirming its tenability. The final four-cluster solution accounted for 30% of the variance in active-challenge coping (comprised of problem-solving, information-seeking, negotiation, and support-seeking), 40% of the variance in passive-challenge coping (accommodation and self-reliance), 57% of the variance in helplessness (rumination, helplessness, and one delegation item), 44% of the variance in avoidance (isolation and escape), and 39% of the variance in opposition (opposition and one delegation item).

The four-cluster solution is depicted in Figure 1. The largest cluster was labeled as *self-reliant copers* ($n = 108$, 32.3% of the total sample; 44% girls), as this cluster was characterized by a much higher than average score for passive-challenge coping (i.e., self-reliance and accommodation) and below-average scores for helplessness. The cluster that was labeled as *active copers* ($n = 80$, 24% of the sample, 49% girls) was characterized by relatively high scores in active-challenge coping (i.e., problem-solving, information-seeking, negotiation, and support-seeking), but also higher than average scores for opposition and helplessness, and much lower than average in passive-challenge coping (i.e., self-reliance and accommodation). Overall, this active cluster showed the most varied pattern of coping across the categories. The cluster that we labeled as *helpless-avoidant copers* ($n = 75$, 22.5% of the sample, 65% girls) was characterized by higher-than-average endorsement of coping through helplessness and avoidance. The final cluster, named *low copers* ($n = 71$, 21.3% of the sample, 35% girls), was characterized by below-average scores for all coping composites, except for an average score for passive-challenge coping. There were significant sex differences in the cluster distribution (Pearson's $\chi^2(3) = 14.24$, $p = .003$), with girls especially being overrepresented in the helpless-avoidant cluster. A univariate ANOVA indicated no significant age differences between the clusters, $F(3,330) = 1.90$, $p = .13$.

Between-Cluster Differences in Adolescents' Perceptions of Parenting

Two separate MANOVAs were performed to test for between-cluster differences in perceived maternal and paternal parenting, thereby controlling for sex. For mothers' parenting, the multivariate effect was statistically significant, $F(27, 938) = 3.23$, $p < .001$, partial $\eta^2 = .08$. The results of univariate follow-up comparisons are presented in Table 3. Low copers reported experiencing significantly less responsiveness than the other three clusters. In terms of autonomy support, adolescents from the helpless-avoidant cluster felt that their mother offered less choice than those from the self-reliant cluster, whereas low copers also reported less rationale provision than adolescents from the self-reliant group. Youngsters from the helpless-avoidant and low coping clusters reported less acknowledgement of feelings, compared to participants from the self-reliant cluster. As for psychological control, no significant differences were found for the punishment and performance pressure dimensions, but adolescents from the helpless-avoidant cluster reported experiencing more guilt induction than those from self-reliant cluster. As for overprotection, low copers reported less ego-enhancing overprotection than the three other groups, whereas no significant differences were found for the anxious overprotection.

As for fathers' perceived parenting, a significant multivariate effect was found as well, $F(27, 938) = 2.16$, $p < .001$, partial $\eta^2 = .06$. Results were generally similar to the results obtained for perceived maternal parenting. The results of univariate follow-up comparisons are presented in Table 3 as well. Specifically,

adolescents from the helpless-avoidant group reported less responsiveness than those from the self-reliant group. In terms of autonomy support helpless-avoidant copers reported less provision of choice then self-reliant copers, whereas adolescents from the low coping cluster experienced less rationale provision than adolescents from the self-reliant cluster. Youngsters from helpless-avoidant and active coping clusters experienced less acknowledgement of feelings than participants from the self-reliant cluster. Again, no significant differences were found for punishment and performance pressure, but helpless-avoidant copers perceived more guilt induction than self-reliant copers. As for overprotection, adolescents from the low coping group reported less ego-enhancing paternal overprotection than youngsters from the other three clusters, whereas adolescents from the helpless-avoidant cluster experienced more anxious overprotection than those from the active coping cluster.

Between-Cluster Differences in Personal Adjustment

The MANOVA testing between-cluster differences in personal adjustment also yielded a statistically significant multivariate effect, $F(9, 796) = 7.91$, $p < .001$, partial $\eta^2 = .07$. The results of univariate follow-up comparisons are presented in Table 4. Participants from the helpless-avoidant cluster reported the highest levels of anxiety and depressive symptoms, whereas adolescents from the self-reliant cluster reported the lowest levels. Adolescents in the active coping cluster reported significantly more anxiety and depressive symptoms than those in the self-reliant cluster, but less anxiety than those in the helpless-avoidant cluster. As well, adolescents from the helpless-avoidant cluster reported the lowest level of self-esteem, whereas adolescents from the self-reliant cluster reported the highest self-esteem, and those from the active coping cluster reported levels of self-esteem in-between these two clusters. Scores on personal adjustment for low copers were not statistically significantly different from those from the self-reliant cluster, but were significantly different from the scores of the helpless-avoidant copers (less anxiety and depressive symptoms, higher self-esteem).

Between-Cluster Differences in Social Adjustment

Finally, a statistically significant multivariate effect was found for social adjustment as well, $F(18, 917) = 9.17$, $p < .001$, partial $\eta^2 = .14$; see Table 4 for the univariate results. Adolescents from the helpless-avoidant cluster reported feeling lonelier than youngsters from the other three clusters. In terms of social anxiety, adolescents from both the helpless-avoidant and active coping clusters tended to fear more often others' negative evaluation, compared to adolescents from the low coping and self-reliant clusters, with the latter reporting the lowest levels. Further, adolescents from the helpless-avoidant cluster were more socially avoidant and anxious in new situations than those from the other three groups. In term of general social anxiety, youngsters from the helpless-avoidant cluster reported more general social anxiety than those from the other three groups. For the

quality of the relationship with the best friend, adolescents from the helpless-avoidant cluster perceived less support from their best friends than adolescents from the active coping and self-reliant clusters. Finally, we did not find any significant differences in terms of negative interactions with the best friend.

Discussion

As peer relationships becomes increasingly important during adolescence, experiencing peer exclusion is particularly painful during this developmental period (Zimmer-Gembeck, 2016). The first goal of the present study was to distinguish patterns of coping reactions that youths may have in situations of peer exclusion. For this purpose, three vignettes presenting short stories of peer exclusion were presented to participants in order to standardize the assessment of coping. A cluster analysis yielded four typologies of coping with peer exclusion. In line with the motivational theory of coping (Skinner & Zimmer-Gembeck, 2016), we found considerable variety in adolescents' way of coping with peer exclusion: whereas some adolescents rely upon a mixture of specific coping strategies, others reported mobilizing few coping strategies at all. These results illustrate the importance of using a person-centered approach for studying of adolescents' coping with peer exclusion in an integrated way. In addition, subsequent analyses offered evidence for significant between-cluster differences in terms of their perceived parenting context and psychosocial adjustment, which helps us gain a deeper understanding of each of those clusters, as is discussed below.

The *helpless-avoidant cluster* was composed of adolescents who mainly relied upon the threat-coping strategies of helplessness and avoidance coping strategies. This cluster is similar to the previously documented coping profiles characterized by avoidance (Doron et al., 2014) and catastrophizing and blaming (van den Heuvel et al., 2020). These adolescents seem to grow up in a suboptimal parenting context, as they perceived less paternal responsiveness, less autonomy-support (in terms of choice provision and acknowledging feelings), and more psychological control (in terms of guilt induction) both from their mothers and their fathers, as compared to the adolescents in the self-reliant cluster in particular. Further, these adolescents also manifested the least-adjusted profile in terms of personal adjustment (i.e., highest levels of anxiety and depressive symptoms, lowest self-esteem) and social adjustment (i.e., highest levels of loneliness and social anxiety, and lowest level of the best-friend perceived support). These findings are consistent with previous research (e.g., Burgess et al., 2006; Wonderlich-Tierney & Vander Wal, 2010), indicating that adolescents using passive-threat coping strategies, such as avoidance and rumination, have more relational difficulties, and are at-risk for psychopathology. Indeed, maladaptive coping strategies may complicate making and maintaining friendships, which in turn may prompt loneliness and social anxiety. This group is clinically most important, as this group

may be most at risk for an escalation in psychosocial difficulties and psychopathology (e.g., Schacter et al., 2018; Zimmer-Gembeck & Skinner, 2016). Thus, from an intervention point of view, it may be particularly important to target these adolescents, by fostering the development of more optimal coping strategies in order to deal more adaptively with socially challenging situations, and to nurture resilience and prevent the development of psychopathology more generally. A potentially useful intervention program for fostering adaptive coping and strengthening resilience is the FRIENDS program, which previously received considerable empirical support for its effectiveness (e.g., Barrett et al., 2006; Brownlee et al., 2013).

The cluster that we labeled *self-reliant copers* primarily relied upon adaptive coping responses, and in particular the passive-challenge strategies of accommodation and self-reliance. This cluster is similar to the adaptive coping clusters documented in previous research (e.g., Doron et al., 2014), although in the McDermott et al. (2019), this cluster was rather characterized by proactive responses such as self-assertion, which could be due to the nature of the stressor (ethnic-racial discrimination). Adolescents in this cluster reported the best adjustment in terms of psychosocial functioning, including few symptoms of psychopathology, the highest level of self-esteem, and low levels of loneliness and social anxiety. This extends previous research on secondary control strategies, such as accommodation, suggesting that these types of coping strategies are particularly adaptive in the context of close relationships (Morling & Evered, 2006). In addition, adolescents from this cluster reported high levels of parental responsiveness and autonomy support. These results are consistent with previous findings (Li et al., 2019), and suggest that in a family context that is responsive for the adolescents' emotional and developmental needs, adolescents are more likely to develop the necessary skills to cope constructively with interpersonal stressors outside the familial realm as well.

The cluster of *low copers* refers to the subgroup of adolescents that reported using relatively few coping strategies in general. This cluster has been documented in previous research as well (e.g., Doron et al., 2014; van den Heuvel et al., 2019). In addition, as in these previous studies, these adolescents seem relatively well-adjusted, as they reported levels of adjustment that was generally not significantly different from the self-reliant cluster. It has been suggested that low copers mobilize less coping efforts because they perceive less stress to contend with (Doron et al., 2014; Gaudreau & Blondin, 2004). This hypothesis is corroborated by post-hoc analyses, as cluster membership significantly predicts scores on the validation variables of perceived rejection $[F(3,292) = 24.94, p < .001]$ and exclusion $[F(3,292) = 22.47, p < .001]$, with low copers reporting significantly experiencing less rejection ($M = 3.05$) and exclusion ($M = 3.23$) than adolescents in the self-reliant cluster ($M = 3.49$ and $M = 3.67$, respectively), in the helpless-avoidant cluster ($M = 4.12$ and $M = 4.17$, respectively),

and in the active coping cluster ($M = 4.25$ and $M = 4.34$, respectively). Further, we found that low copers experienced relatively low levels of parental responsiveness and autonomy support. These findings are similar to those of Tandon et al. (2013), who found that adolescents using few coping strategies in general received less emotional support from their friends and parents: thus, it seems that their parents are less involved in their youth's lives, and therefore may engage less often in effective scaffolding behavior that may help their children to develop constructive coping strategies (Carr & Pike, 2012).

Finally, adolescents from the *active coping cluster* reported they would engage in a mixture of both challenge and threat coping strategies. As in previous research, such mixed profiles has been identified as well (Doron et al., 2014; McDermont et al., 2019; van den Heuvel et al., 2020), although these adolescents' specific profile deviates to some extent, which could be due to our specific focus on peer exclusion. In particular, these adolescents' reaction to peer exclusion was characterized by active efforts to change the situation, through both adaptive challenge strategies (e.g., problem-solving) but also maladaptive oppositional strategies (e.g., getting back and making others pay for what had happened) and through helplessness. Thus, adolescents in this cluster seem to engage particularly in "active-behavioral coping strategies", which involve overt behavioral attempts to deal with the problem directly (e.g., Billings & Moors, 1981). However, it should be noted that such behaviors are often conceived as adaptive coping strategies (De Rijk et al., 1998). Our results do not necessarily confirm this hypothesis, as adolescents in this cluster reported relatively low scores in terms of psychosocial adjustment. This suggests that not so much the absence of challenge strategies (as in the low coping cluster) but rather the use of threat coping strategies (as in the active-oppositional cluster) may set adolescents at risk of adjustment difficulties. Potentially, this might indicate that adolescents in this cluster have difficulties regulating their action tendencies in response to stress. Indeed, successful coping not only implies the initiation and energization of action, but also the modulation and inhibition of action (Skinner & Zimmer-Gembeck, 2016; White, 1974), including refraining from behaviors that are harmful (such as getting back). However, future research is needed to gain a more in-depth understanding of this relation between action, regulation, and coping.

There are several strengths of this study, including the fact that we used a standardized method for assessing coping, and the person-centered approach for studying coping with peer exclusion. Moreover, this research offers further insights into the links between adolescents' coping with peer exclusion and perceived parenting and psychosocial adjustment. However, there are also several study limitations. First, the generalizability of findings is limited to French-speaking adolescents living in Switzerland; the results warrant replication in different cultural contexts. For instance, the same parental practices may be experienced differently

or may convey a different meaning in different cultural contexts (e.g., Soenens et al., 2015), and therefore may be associated with the development of different types of coping strategies. Similarly, ambient cultural norms about social relationships may fluctuate across cultural contexts, and therefore may affect perceptions and responses to peer exclusion (Fiske & Yamamoto, 2005). As a consequence, the correlates of different profiles of coping with peer exclusion may vary across cultural contexts as well.

Second, all outcomes are based on adolescents' self-report; information from other informants (e.g., parents, teachers) could yield a more complete picture. Further, although our reliance upon an analog methodology with standardized and pilot-tested vignettes is an important strength, it may also come with certain short-comings, including the possibility of socially desirable responding and the potential incongruence between adolescents' self-reported responses about how they imagine they would respond vs. their actual responses if they would be confronted with peer exclusion. Moreover, due to the cross-sectional nature of the data, we were only able to test within-time associations between variables; longitudinal research is needed to test whether one variable (e.g., parenting) predicts changes in another variable (e.g., coping). Moreover, we did not differentiate same-sex and opposite-sex friendships, when considering the quality of the best-friend relationship, and we did not test whether the friendship was reciprocal or not. Future research should examine this as well, as previous studies showed that these dimensions influence the quality of the friendship (e.g., Lempers & Clark-Lempers, 1993). It would be useful for future studies to also examine other factors underlying peer relationships that may affect adolescents' way of coping with peer exclusion, such as their rejection sensitivity (Gardner & Zimmer-Gembeck, 2018).

It could be of interest for future research to explicitly make a link with the resilience literature, by examining whether adolescents from more adaptive coping clusters have higher resilience scores (cf. Dumont & Provost, 1999). Future research could manipulate the ambiguity of the stressors as well, as past research documented differences on adolescents' interpretations and responses to situations of overt vs. ambiguous exclusion (Zimmer-Gembeck & Nesdale, 2013). Further, as the development of coping unfolds over time, with developmental shifts occurring throughout childhood and adolescence (e.g., Skinner & Zimmer-Gembeck, 2007), it could also be of interest for future studies to focus on younger children. Finally, it should be noted that no significant differences were found for certain controlling parenting practices, and that proportion of variance explained by each parenting dimension is relatively small. This could be due to our focus on general parenting dimensions, rather than parents' peer-specific practices. Indeed, Brown and Bakken (2011) stressed that it is

important to contextualize these general parenting dimensions by considering the peer-specific context and to simultaneously assess salient dimensions of peer-focused parenting as well.

Conflict of Interest

The authors report no conflict of interests.

Ethics Statement

All procedures performed involving human participants in this study were in accordance with the ethical standards of the University of Lausanne Institutional Review Board and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent

All participants were informed and consented their participation in the study.

References

Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, *17*(4), 351-371.

Ayduk, Ö., Gyurak, A., & Luerssen, A. (2008). Individual differences in the rejection–aggression link in the hot sauce paradigm: The case of rejection sensitivity. *Journal of Experimental Social Psychology*, *44*(3), 775-782.

Bagwell, C. L., Newcomb, A. F., & Bukowski, W. M. (1998). Preadolescent friendship and peer rejection as predictors of adult adjustment. *Child Development*, *69*(1), 140-153.

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*(6), 3296-3319.

Barrett, P. M., Farrell, L. J., Ollendick, T. H., & Dadds, M. (2006). Long-term outcomes of an Australian universal prevention trial of anxiety and depression symptoms in children and youth: An evaluation of the friends program. *Journal of Clinical Child and Adolescent Psychology*, *35*(3), 403-411.

Bernstein, M. J., & Claypool, H. M. (2012). Not all social exclusions are created equal: Emotional distress following social exclusion is moderated by exclusion paradigm. *Social Influence*, *7*(2), 113-130.

Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine, 4*(2), 139-157.

Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999). Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): a replication study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *38*(10), 1230-1236.

Bjorck, J. P., & Byron, K. J. (2014). Does stress-related growth involve constructive changes in coping intentions? *The Journal of Positive Psychology*, *9*(2), 97-107.

Brenning, K. M., Soenens, B., Van Petegem, S., & Kins, E. (2017). Searching for the roots of overprotective parenting in emerging adulthood: Investigating the link with parental attachment representations using an Actor Partner Interdependence Model (APIM). *Journal of Child and Family Studies, 26*(8), 2299-2310.

Brown, B. B., & Bakken, J. P. (2011). Parenting and peer relationships: Reinvigorating research on family–peer linkages in adolescence. *Journal of Research on Adolescence, 21*(1), 153-165.

Brownlee, K., Rawana, J., Franks, J., Harper, J., Bajwa, J., O'Brien, E., & Clarkson, A. (2013). A systematic review of strengths and resilience outcome literature relevant to children and adolescents. *Child and Adolescent Social Work Journal*, *30*(5), 435-459.

Burgess, K. B., Wojslawowicz, J. C., Rubin, K. H., Rose-Krasnor, L., & Booth-LaForce, C. (2006). Social

    information processing and coping strategies of shy/withdrawn and aggressive children: Does friendship

    matter?. *Child Development, 77*(2), 371-383.

Carr, A., & Pike, A. (2012). Maternal scaffolding behavior: links with parenting style and maternal education.

    Developmental Psychology, 48(2), 543-551.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with

    stress during childhood and adolescence: Problems, progress, and potential in theory and research.

    Psychological Bulletin, 127(1), 87–127.

Davidov, M., & Grusec, J. E. (2006). Untangling the links of parental responsiveness to distress and warmth to

    child outcomes. *Child Development, 77*(1), 44-58.

De Rijk, A. E., Blanc, P. M. L., Schaufeli, W. B., & De Jonge, J. (1998). Active coping and need for control as

    moderators of the job demand–control model: Effects on burnout. *Journal of Occupational and*

    Organizational Psychology, 71(1), 1-18.

De Wall, C. N., & Bushman, B. J. (2011). Social acceptance and rejection: The sweet and the bitter. *Current*

    Directions in Psychological Science, *20*(4), 256-260.

Di Giunta, L., Pastorelli, C., Thartori, E., Bombi, A. S., Baumgartner, E., Fabes, R. A., & Enders, C. K. (2018).

    Trajectories of Italian children's peer rejection: associations with aggression, prosocial behavior, physical

    attractiveness, and adolescent adjustment. *Journal of Abnormal Child Psychology, 46*(5), 1021-1035.

Doron, J., Trouillet, R., Maneveau, A., Neveu, D., & Ninot, G. (2014). Coping profiles, perceived stress and

    health-related behaviors: a cluster analysis approach. *Health Promotion International, 30*(1), 88-100.

Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping

    strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth*

    and Adolescence, *28*(3), 343-363.

Dusek, J. B., & Danko, M. (1994). Adolescent coping styles and perceptions of parental child rearing. *Journal of*

    Adolescent Research, 9(4), 412-426.

Eisenberger, N. I. (2012). The pain of social disconnection: examining the shared neural underpinnings of

    physical and social pain. *Nature Reviews Neuroscience, 13*(6), 421-434.

Evans, S. C., Roberts, M. C., Keeley, J. W., Blossom, J. B., Amaro, C. M., Garcia, A. M., & Reed, G. M. (2015).

    Vignette methodologies for studying clinicians' decision-making: Validity, utility, and application in

    ICD-11 field studies. *International Journal of Clinical and Health Psychology*, *15*(2), 160-170.

Fiske, S. T., & Yamamoto, M. (2005). *Coping with rejection: Core social motives across cultures.* In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *Sydney Symposium of Social Psychology series. The social outcast: Ostracism, social exclusion, rejection, and bullying* (p. 185–198). Psychology Press.

Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*(6), 1016–1024.

Furman, W., & Buhrmester, D. (2010). *Network of relationships questionnaire manual.* Unpublished manuscript, University of Denver, Denver, CO, and the University of Texas, Dallas.

Gardner, A., & Zimmer-Gembeck, M. J. (2018). Rejection sensitivity and responses to rejection: Serial mediators linking parenting to emerging adults' depression and trait anxiety. *Journal of Relationships Research, 9*. doi:10.1017/jrr.2018.8

Garnefski, N., Legerstee, J., Kraaij, V., van Den Kommer, T., & Teerds, J. A. N. (2002). Cognitive coping strategies and symptoms of depression and anxiety: A comparison between adolescents and adults. *Journal of Adolescence, 25*(6), 603-611.

Gaudreau, P., & Blondin, J. P. (2004). Different athletes cope differently during a sport competition: A cluster analysis of coping. *Personality and Individual Differences, 36*(8), 1865-1877.

Gore, P. A. J. (2000). Cluster analysis. In H. E. A. Tinsley & S. D. Brown (Eds.), *Handbook of applied multivariate statistics and mathematical modeling* (pp. 297–321). San Diego, CA: Academic Press.

Harter, S. (1988). *Manual for the Self-Perception Profile for Adolescents.* University of Denver.

Hartgerink, C. H., Van Beest, I., Wicherts, J. M., & Williams, K. D. (2015). The ordinal effects of ostracism: A meta-analysis of 120 Cyberball studies. *PloS one, 10*(5). doi:10.1371/journal.pone.0127002

Hartigan, J. A., & Wong, M. A. (1979). Algorithm AS 136: A k-means clustering algorithm. *Journal of the Royal Statistical Society. Series C (Applied Statistics), 28*(1), 100-108.

Hartup, W. W., & Stevens, N. (1999). Friendships and adaptation across the life span. *Current Directions in Psychological Science, 8*(3), 76-79.

Hogendoorn, S. M., Prins, P. J., Boer, F., Vervoort, L., Wolters, L. H., Moorlag, H., ... & de Haan, E. (2014). Mediators of cognitive behavioral therapy for anxiety-disordered children and adolescents: Cognition, perceived control, and coping. *Journal of Clinical Child & Adolescent Psychology, 43*(3), 486-500.

Kanat-Maymon, M., & Assor, A. (2010). Perceived maternal control and responsiveness to distress as predictors of young adults' empathic responses. *Personality and Social Psychology Bulletin*, *36*(1), 33-46.

Kins, E., & Soenens, B. (2013). Generation me and its helicopter parents. In Keijsers, L. (chair) & Seiffge-Krenke, I. (discussant), *Parent-child relationships in middle/late adolescence and emerging adulthood*. Symposium at the 16th European Conference on Developmental Psychology, Lausanne, Switzerland.

Klink, J. L., Byars-Winston, A., & Bakken, L. L. (2008). Coping efficacy and perceived family support: potential factors for reducing stress in premedical students. *Medical Education*, *42*(6), 572-579.

La Greca, A. M., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology*, *34*(1), 49-61.

La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology, 26*(2), 83-94.

Leary, M. R., & Kowalski, R. M. (1997). *Social anxiety*. Guilford Press.

Leets, L., & Sunwolf. (2005). Adolescent rules for social exclusion: when is it fair to exclude someone else?. *Journal of Moral Education*, *34*(3), 343-362.

Lempers, J. D., & Clark-Lempers, D. S. (1993). A functional comparison of same-sex and opposite-sex friendships during adolescence. *Journal of Adolescent Research, 8*(1), 89-108.

Li, R., Yao, M., Liu, H., & Chen, Y. (2019). Relationships among autonomy support, psychological control, coping, and loneliness: Comparing victims with nonvictims. *Personality and Individual Differences, 138*, 266-272.

Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American statistical Association, 83*(404), 1198-1202.

Lo, R. (2002). A longitudinal study of perceived level of stress, coping and self-esteem of undergraduate nursing students: an Australian case study. *Journal of Advanced Nursing, 39*(2), 119-126.

MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, *131*(2), 202.

Mageau, G. A., Ranger, F., Joussemet, M., Koestner, R., Moreau, E., & Forest, J. (2015). Validation of the Perceived Parental Autonomy Support Scale (P-PASS). *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement, 47*(3), 251-262.

Marcoen, A., Goossens, L., & Caes, P. (1987). Loneliness in pre- through late adolescence: Exploring the contributions. *Journal of Youth and Adolescence*, *16*(6) 561-577.

McDermott, E. R., Umaña-Taylor, A. J., & Zeiders, K. H. (2019). Profiles of coping with ethnic-racial discrimination and Latina/o adolescents' adjustment. *Journal of Youth and Adolescence, 48*(5), 908-923.

McDougall, P., & Vaillancourt, T. (2015). Long-term adult outcomes of peer victimization in childhood and adolescence: Pathways to adjustment and maladjustment. *American Psychologist*, *70*(4), 300-310.

Moller, A. C., Deci, E. L., & Elliot, A. J. (2010). Person-level relatedness and the incremental value of relating. *Personality and Social Psychology Bulletin*, *36*(6), 754-767.

Morling, B., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin, 132*(2), 269-296.

Mulvey, K. L., Boswell, C., & Zheng, J. (2017). Causes and consequences of social exclusion and peer rejection among children and adolescents. *Report on Emotional & Behavioral Disorders in Youth*, *17*(3), 71-75.

Nelemans, S. A., Meeus, W. H., Branje, S. J., Van Leeuwen, K., Colpin, H., Verschueren, K., & Goossens, L. (2017). Social Anxiety Scale for Adolescents (SAS-A) Short Form: Longitudinal measurement invariance in two community samples of youth. *Assessment, 26*(2), 235-248.

Parker, G. (1983). *Parental overprotection: A risk factor in psychosocial development*. Grune & Stratton.

Peplau, L. A., & Perlman, D. (1982). Perspective on loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 1-18). New York: Wiley.

Platt, B., Kadosh, K. C., & Lau, J. Y. (2013). The role of peer rejection in adolescent depression. *Depression and Anxiety*, *30*(9), 809-821.

Riva, P., Montali, L., Wirth, J. H., Curioni, S., & Williams, K. D. (2017). Chronic social exclusion and evidence for the resignation stage: An empirical investigation. *Journal of Social and Personal Relationships*, *34*(4), 541-564.

Roohafza, H. R., Afshar, H., Keshteli, A. H., Mohammadi, N., Feizi, A., Taslimi, M., & Adibi, P. (2014). What's the role of perceived social support and coping styles in depression and anxiety? *Journal of Research in Medical Sciences*, *19*(10), 944.

Rousseau, S., & Scharf, M. (2015). "I will guide you" The indirect link between overparenting and young adults' adjustment. *Psychiatry Research, 228*(3), 826-834.

Schacter, H. L., Lessard, L. M., & Juvonen, J. (2019). Peer rejection as a precursor of romantic dysfunction in adolescence: Can friendships protect? *Journal of Adolescence, 77*, 70-80.

Schaefer, E. S. (1965). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology, 29*, 552-557.

Schafer, J. L. (1997). *Analysis of incomplete multivariate data*. Chapman and Hall: CRC Press.

Scharf, M., & Goldner, L. (2018). "If you really love me, you will do/be…": Parental psychological control and its implications for children's adjustment. *Developmental Review, 49*, 16-30.

Segrin, C., Givertz, M., Swaitkowski, P., & Montgomery, N. (2015). Overparenting is associated with child problems and a critical family environment. *Journal of Child and Family Studies*, *24*(2), 470-479.

Seiffge-Krenke, I., & Pakalniskiene, V. (2011). Who shapes whom in the family: Reciprocal links between autonomy support in the family and parents' and adolescents' coping behaviors. *Journal of Youth and Adolescence*, *40*(8), 983-995.

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, *129*(2), 216-269.

Skinner, E. A., & Wellborn, J. G. (1994). Coping during childhood and adolescence: A motivational perspective. In D. L. Featherman, R. M. Lerner, & M. Perlmutter (Eds.), *Life-span development and behavior* (vol. 12, pp. 91-133). New York: Lawrence Erlbaum Associates.

Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology, 58*, 119–144.

Skinner, E. A., & Zimmer-Gembeck, M. J. (2016). *The development of coping from birth to emerging adulthood: Neurophysiological and social underpinnings, qualitative shifts, and differential pathways towards psychopathology and resilience*. New York: Springer.

Smetana, J. G. (2017). Current research on parenting styles, dimensions, and beliefs. *Current Opinion in Psychology*, *15*, 19-25.

Soenens, B., & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Developmental Review, 30*(1), 74-99.

Soenens, B., Vansteenkiste, M., & Beyers, W. (in press). Parenting adolescents. In M. Bornstein (Ed.), *Handbook of parenting (vol. 1): Children and parenting* (Vol. 1). Routledge.

Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promotion of independence versus promotion of volitional functioning. *Developmental Psychology*, *43*(3), 633.

Soenens, B., Vansteenkiste, M., Goossens, L., Duriez, B., & Niemiec, C. P. (2008). The intervening role of relational aggression between psychological control and friendship quality. *Social Development, 17*(3), 661-681.

Soenens, B., Vansteenkiste, M., & Van Petegem, S. (2015). Let us not throw out the baby with the bathwater: Applying the principle of universalism without uniformity to autonomy-supportive and controlling parenting. *Child Development Perspectives*, *9*(1), 44-49.

Spiekerman, A. M., Witkow, M. R., & Nishina, A. (2020). Peer victimization and depressive symptoms during adolescence: Examining the roles of social support and internalizing coping. *The Journal of Early Adolescence*. Advance online publication. https://doi.org/10.1177/0272431620931191

Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Jama*, *282*(18), 1737-1744.

Stanley, L., & Arora, T. (1998). Social exclusion amongst adolescent girls: Their self-esteem and coping strategies. *Educational Psychology in Practice*, *14*(2), 94-100.

Stein, M. B., Fuetsch, M., Müller, N., Höfler, M., Lieb, R., & Wittchen, H. U. (2001). Social anxiety disorder and the risk of depression: A prospective community study of adolescents and young adults. *Archives of General Psychiatry, 58*(3), 251-256.

Stone, A. A., Greenberg, M. A., Kennedy-Moore, E., & Newman, M. G. (1991). Self-report, situation-specific coping questionnaires: What are they measuring? *Journal of Personality and Social Psychology*, *61*(4), 648-658.

Tandon, S. D., Dariotis, J. K., Tucker, M. G., & Sonenstein, F. L. (2013). Coping, stress, and social support associations with internalizing and externalizing behavior among urban adolescents and young adults: revelations from a cluster analysis. *Journal of Adolescent Health, 52*(5), 627-633.

Thomasgard, M., Metz, W. P., Edelbrock, C., & Shonkoff, J. P. (1995). Parent-child relationship disorders: I. Parental overprotection and the development of the Parent Protection Scale. *Journal of Developmental and Behavioral Pediatrics*.

Undheim, A. M., Wallander, J., & Sund, A. M. (2016). Coping strategies and associations with depression among 12-to 15-year-old Norwegian adolescents involved in bullying. *The Journal of Nervous and Mental Disease, 204*(4), 274-279.

Van den Heuvel, M. W., Stikkelbroek, Y. A., Bodden, D. H., & van Baar, A. L. (2020). Coping with stressful life events: Cognitive emotion regulation profiles and depressive symptoms in adolescents. *Development and Psychopathology, 32*, 985-995.

Vanhalst, J., Luyckx, K., Teppers, E., & Goossens, L. (2012). Disentangling the longitudinal relation between loneliness and depressive symptoms: Prospective effects and the intervening role of coping. *Journal of Social and Clinical Psychology, 31*(8), 810-834.

Vanhalst, J., Soenens, B., Luyckx, K., Van Petegem, S., Weeks, M. S., & Asher, S. R. (2015). Why do the lonely stay lonely? Chronically lonely adolescents' attributions and emotions in situations of social inclusion and exclusion. *Journal of Personality and Social Psychology*, *109*(5), 932-948.

Vanhalst, J., Luyckx, K., Van Petegem, S., & Soenens, B. (2018). The detrimental effects of adolescents' chronic loneliness on motivation and emotion regulation in social situations. *Journal of Youth and Adolescence, 47*(1), 162-176.

Van Ingen, D. J., Freiheit, S. R., Steinfeldt, J. A., Moore, L. L., Wimer, D. J., Knutt, A. D., ... & Roberts, A. (2015). Helicopter parenting: The effect of an overbearing caregiving style on peer attachment and self-efficacy. *Journal of College Counseling*, *18*(1), 7-20.

Van Petegem, S., Antonietti, J. P., Nunes, C. E., Kins, E., & Soenens, B. (2020). The relationship between maternal overprotection, adolescent internalizing and externalizing problems, and psychological need frustration: a multi-informant study using response surface analysis. *Journal of Youth and Adolescence, 49*(1), 162-177.

Van Petegem, S., Zimmer-Gembeck, M., Baudat, S., Soenens, B., Vansteenkiste, M., & Zimmermann, G. (2019). Adolescents' responses to parental regulation: The role of communication style and self-determination. *Journal of Applied Developmental Psychology*, *65*, 101073.

Van Petegem, S., Zimmer-Gembeck, M. J., Soenens, B., Vansteenkiste, M., Brenning, K., Mabbe, E., Vanhalst, J., & Zimmermann, G. (2017). Does general parenting context modify adolescents' appraisals and coping with a situation of parental regulation? The case of autonomy-supportive parenting. *Journal of Child and Family Studies, 26*(9), 2623–2639.

Vinik, J., Almas, A., & Grusec, J. (2011). Mothers' knowledge of what distresses and what comforts their children predicts children's coping, empathy, and prosocial behavior. *Parenting, 11*(1), 56-71.

von Eye, A., & Bogat, G. A. (2006). Person-oriented and variable-oriented research: Concepts, results, and development. *Merrill-Palmer Quarterly, 52*, 390-420.

White, R. W (1974). Strategies for adaptation: An attempt at systematic description. In G. V. Coelho, D. A. Hamburg, & J. E. Adams (Eds), *Coping and adaptation* (pp. 47-68). New York: Basic Book.

Wichstraum, L. (1995). Harter's Self-Perception Profile for Adolescents: Reliability, validity, and evaluation of the question format. *Journal of Personality Assessment, 65*(1), 100-116.

Williams, K. D., Wheeler, L., & Harvey, J. A. (2001). Inside the social mind of the ostracizer. In J. P. Forgas, K. D. Williams, & L. Wheeler (Eds.), *The social mind: Cognitive and motivational aspects of interpersonal behavior* (p. 294–320). Cambridge University Press.

Williams, K. D. (2007). Ostracism. *Annual Review of Psychology, 58*, 425-452.

Wonderlich-Tierney, A. L., & Vander Wal, J. S. (2010). The effects of social support and coping on the relationship between social anxiety and eating disorders. *Eating Behaviors, 11*(2), 85-91.

Yim, O., & Ramdeen, K. T. (2015). Hierarchical cluster analysis: comparison of three linkage measures and application to psychological data. *The Quantitative Methods for Psychology, 11*(1), 8-21.

Zimmer‐Gembeck, M. J. (2015). Emotional sensitivity before and after coping with rejection: A longitudinal study, *Journal of Applied Developmental Psychology, 41*, 28-37.

Zimmer-Gembeck, M. J. (2016). Peer rejection, victimization, and relational self-system processes in adolescence: Toward a transactional model of stress, coping, and developing sensitivities. *Child Development Perspectives*, *10*(2), 122-127.

Zimmer-Gembeck, M. J., Lees, D. C., Bradley, G. L., & Skinner, E. A. (2009). Use of an analogue method to examine children's appraisals of threat and emotion in response to stressful events. *Motivation & Emotion*, *33*(2), 136-149.

Zimmer-Gembeck, M. J., & Locke, E. M. (2007). The socialization of adolescent coping behaviours: Relationships with families and teachers. *Journal of Adolescence, 30*(1), 1-16.

Zimmer-Gembeck, M. J., & Nesdale, D. (2013). Anxious and angry rejection sensitivity, social withdrawal, and retribution in high and low ambiguous situations. *Journal of Personality, 81*(1), 29-38.

Zimmer-Gembeck, M. J., & Skinner, E. A. (2011). The development of coping across childhood and adolescence: An integrative review and critique of research. *International Journal of Behavioral Development, 35*(1), 1-17.

Zimmer-Gembeck, M. J., & Skinner, E. A. (2016). The development of coping and regulation: Implications for psychopathology and resilience. In D. Cicchetti (Ed.) *Developmental psychopathology* (3rd Ed., Vol. 4, pp. 485-544). New York: Wiley.

Zimmer-Gembeck, M. J., Van Petegem, S., & Skinner, E. A. (2016). Emotion, controllability and orientation towards stress as correlates of children's coping with interpersonal stress. *Motivation and Emotion, 40*(1), 178-191.

Zimmer-Gembeck, M. J., Webb, H. J., Farrell, L. J., & Waters, A. M. (2018). Girls' and boys' trajectories of appearance anxiety from age 10 to 15 years are associated with earlier maturation and appearance-related teasing. *Development and Psychopathology, 30*(1), 337-350.

Tables

Table 1

Challenge and threat coping strategies (adapted from Skinner & Zimmer-Gembeck, 2007)

	Coping strategy	Description
Challenge coping	Problem-solving	Logical analysis, planning and determination to find a solution
	Information-seeking	Finding out about the details of the situation, including its potential causes and consequences
	Support-seeking	Seeking for help from others, such as from parents, peers, or teachers
	Self-reliance	Adopting strategies of self-regulation in the stressful situation
	Accommodation	Thinking differently about the situation and accepting the constraints
	Negotiation	Searching for acceptable compromises suitable for the situation
Threat coping	Helplessness	Giving-up and feeling a loss of control over the situation
	Escape	Attempting to avoid the stressor and escaping from the situation
	Delegation	Maladaptive help-seeking where one depends entirely on others
	Isolation	Avoiding others and emotional withdrawal
	Rumination	Continuous negative thinking
	Opposition	Responding with anger, aggression, and other-blaming

Table 2

Peer Exclusion Vignettes (Adapted from Zimmer-Gembeck & Nesdale, 2013)

Situation 1

You hear that a friend is organizing a big party. You find out that most of your friends have received an invitation, that they are looking forward to the party and that they are planning to go. You still haven't received an invitation and the date of the party is approaching.

Situation 2

You finish a lecture just before lunchtime and leave your classroom to join your friends at your usual spot. As you approach them, you see that they are having an animated conversation and laughing a lot. Just then, a couple of them notice your arrival, your friends whisper something and the conversation suddenly stops. The group immediately breaks up, each one going in a different direction. Nobody looks at you.

Situation 3

You receive an message addressed to you and a number of your friends. The email apparently continues a discussion about a trip that will take place during a coming weekend. You have heard nothing about this trip, nor about the weekend. Worse yet, you read in the message that the others had decided not to tell you because they wanted to be in a small group without you. You suddenly realize that the email was sent to you by mistake (or maybe not…).

Table 3

Results of Comparing the Four Coping Clusters on All Parenting Measures

Variables			Cluster				F (3, 329)	partial η^2
			Helpless-avoidant copers	Active copers	Low copers	Self-reliant copers		
Mother	Responsiveness		4.00^{ab} (0.73)	4.17^a (0.67)	3.86^b (0.94)	4.17^a (0.69)	3.36*	.03
	Autonomy support	Choice provision	4.01^a (0.70)	4.18^{ab} (0.73)	4.04^{ab} (0.81)	4.31^b (0.57)	3.65*	.03
		Rationale	3.70^{ab} (0.72)	3.57^{ab} (0.89)	3.47^a (0.90)	3.90^b (0.81)	4.65**	.04
		Acknowledging feelings	3.75^a (0.87)	3.80^{ab} (0.82)	3.69^a (0.94)	4.10^b (0.80)	4.30**	.04
	Psychological control	Punishment	2.82 (1.05)	2.76 (0.99)	2.54 (0.95)	2.83 (1.00)	1.98	.02
		Performance pressure	2.34 (0.96)	2.24 (0.97)	2.26 (0.92)	2.46 (0.99)	1.24	.01
		Guilt induction	2.18^a (1.00)	1.88^{ab} (0.75)	1.96^{ab} (0.86)	1.72^b (0.74)	4.52**	.04
	Overprotection	Ego-enhancing	2.17^a (0.55)	2.15^a (0.58)	1.88^b (0.42)	2.12^a (0.53)	5.60***	.05
		Anxious	2.73 (0.66)	2.50 (0.66)	2.52 (0.71)	2.51 (0.63)	2.27	.02
Father	Responsiveness		3.49^a (0.92)	3.82^{ab} (0.85)	3.61^{ab} (0.95)	3.90^b (0.85)	3.55*	.03
	Autonomy support	Choice provision	3.88^a (0.88)	4.18^{ab} (0.77)	4.02^{ab} (0.76)	4.19^b (0.63)	2.71*	.02
		Rationale	3.55^{ab} (0.80)	3.66^{ab} (0.89)	3.39^a (0.92)	3.86^b (0.74)	5.60***	.05
		Acknowledging feelings	3.44^a (0.88)	3.66^{ab} (0.82)	3.49^{ab} (0.98)	3.81^b (0.85)	3.06*	.03
	Psychological control	Punishment	2.84 (1.01)	2.61 (0.86)	2.70 (1.12)	2.74 (0.97)	1.15	.01
		Performance pressure	2.47 (1.03)	2.30 (0.98)	2.40 (1.04)	2.57 (0.95)	1.32	.01
		Guilt induction	2.17^a (0.96)	1.84^{ab} (0.71)	1.95^{ab} (0.96)	1.76^b (0.78)	3.44*	.03
	Overprotection	Ego-enhancing	2.05^a (0.53)	2.04^a (0.55)	1.79^b (0.40)	2.05^a (0.48)	6.48***	.06
		Anxious	2.43^a (0.62)	2.19^b (0.56)	2.25^{ab} (0.65)	2.21^{ab} (0.51)	2.73*	.02

Note. Sex was included as a control variable. A cluster mean is different from another mean in a row if the superscripts are different at p < .05 in the Tukey honestly significant difference comparison. Standard deviations are in parentheses. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4

Results of Comparing the Four Coping Clusters on Measures of Personal and Social Adjustment

Variables		Cluster				$F(3, 329)$	partial η^2
		Helpless-avoidant copers	Active copers	Low copers	Self-reliant copers		
General anxiety		1.12ª (0.39)	0.88ᵇ (0.34)	0.79ᵇᶜ (0.38)	0.68ᶜ (0.35)	19.28***	.15
Depressive symptoms		1.31ª (0.62)	1.08ᵃᵇ (0.56)	1.06ᵇᶜ (0.62)	0.84ᶜ (0.55)	7.87***	.07
Self-esteem		3.16ª (1.07)	3.69ᵇ (0.95)	3.82ᵇᶜ (0.79)	4.09ᶜ (0.78)	13.74***	.11
Loneliness		2.19ª (0.70)	1.67ᵇ (0.55)	1.51ᵇ (0.44)	1.49ᵇ (0.58)	22.44***	.17
Social anxiety	Fear negative evaluation	3.31ª (1.02)	2.97ª (0.93)	2.46ᵇ (0.99)	2.01ᶜ (0.83)	30.91***	.22
	New situations	3.45ª (1.01)	2.61ᵇ (1.02)	2.57ᵇ (1.09)	2.44ᵇ (0.92)	14.22***	.12
	General	2.44ª (0.97)	1.53ᵇ (0.57)	1.70ᵇ (0.65)	1.62ᵇ (0.64)	25.80***	.19
Quality of best friendship	Perceived support	3.95ª (0.74)	4.26ᵇ (0.48)	4.08ᵃᵇ (0.64)	4.28ᵇ (0.55)	7.09***	.06
	Negativity	1.84 (0.67)	1.97 (0.68)	1.81 (0.66)	1.90 (0.70)	0.93	.01

Note. Sex was included as a control variable. A cluster mean is different from another mean in a row if the superscripts are different at p < .05 in the Tukey honestly significant difference comparison. Standard deviations are in parentheses. * *p* < .05 ; ** *p* < .01 ; *** *p* < .001.
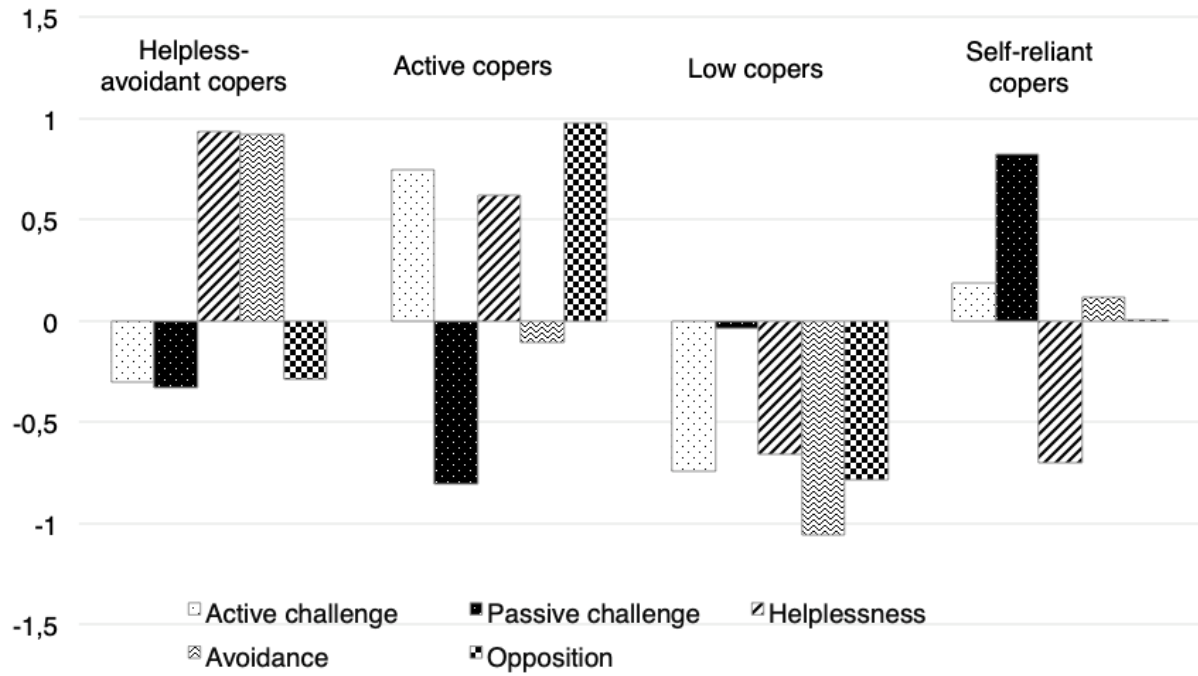
Figures

Figure 1. Average *z*-scores for the five coping composite scores in the four-cluster solution.