

Article

Coping Profiles and Their Relationship With Self-compassion in Childhood

María del Mar Ferradás Canedo ¹, Carlos Freire Rodríguez¹, Lucía Prada Palmeiro ¹, José C. Núñez ², and Susana Rodríguez Martínez ¹

¹ Universidade da Coruña, and ² Universidad de Oviedo

Abstract

Introduction: In line with the growing attention to mental health and stress in children, the present study analyzed the existence of differentiated profiles of coping in response to everyday stressors. The study also examined whether the identified profiles differed in levels of self-compassion. Method: 487 children (9 - 12 years old), selected by convenience sampling, participated in the study. A cross-sectional, ex post facto design was used. Results: Four coping profiles were identified: a profile with low use of coping strategies (LCP), a profile with predominantly approach coping strategies (ACP), a profile with high use of all coping strategies (HMP) and a profile with moderate use of all strategies (MMP). The ACP and HMP profiles demonstrated significantly higher levels of positive self-compassion, whereas the HMP, LCP and MMP profiles demonstrated significantly higher levels of negative self-compassion than the ACP profile. Conclusions: These findings make it possible to determine the profiles of children who are more and less functional in terms of their psychological resources for coping with day-to-day stress. This may encourage the development of more individualized interventions in order to prevent childhood stress.

Keywords: Childhood, coping profiles, self-compassion, stress.

Resumen

Perfiles de Afrontamiento del Estrés y su Relación con la Autocompasión en la Infancia. Antecedentes: en línea con la creciente atención hacia la salud mental y el estrés en la población infantil, en el presente estudio se analizó la existencia de perfiles diferenciados de afrontamiento del estrés en respuesta a las demandas cotidianas. Asimismo, se determinó si los perfiles identificados diferían en su nivel de autocompasión. Método: en el estudio participaron 487 niños (9 - 12 años), seleccionados mediante un muestreo por conveniencia. Se llevó a cabo un diseño ex post facto transversal. **Resultados:** se identificaron cuatro perfiles de afrontamiento: perfil con baja utilización de estrategias de afrontamiento (PBA), perfil con predominio de estrategias aproximativas (PAA), perfil con alta utilización de todas las estrategias (PAAM) y perfil con una utilización moderada de todas las estrategias (PMAM). El PAA y el PAAM evidenciaron los niveles significativamente más altos de autocompasión positiva. Asimismo, los perfiles PAAM, BA y PMAM mostraron niveles significativamente más altos de autocompasión negativa que el perfil PAA. Conclusiones: estos hallazgos permiten determinar los perfiles de niños más y menos funcionales en cuanto a sus recursos psicológicos para hacer frente al estrés cotidiano infantil. Ello favorecería el desarrollo de intervenciones más individualizadas en la prevención del estrés infantil.

Palabras clave: autocompasión, estrés, infancia, perfiles de afrontamiento.

It is currently estimated that between 10 and 20% of the world's children experience some type of psychopathology (UNICEF, 2018), with stress being one of the most important risk factors during this developmental period (Grant et al., 2006). Therefore, early interventions aimed at strengthening the skills to manage emotions and develop resilience in adverse situations are a priority (World Health Organization, 2020). In this context, self-regulatory competencies acquire special relevance, becoming important predictors of mental health in childhood (Robson et al., 2020). Self-regulation is defined as the ability to plan and

Received: June 1, 2021 • Accepted: September 16, 2021
Corresponding author: Carlos Freire Rodríguez
Facultad de Ciencias de la Educación
Universidade da Coruña
15071 A Coruña (Spain)
e-mail: carlos.freire.rodriguez@udc.es

manage one's own cognition, emotions, and behaviors in multiple contexts, in accordance with desired outcomes (Pachón-Basallo et al., 2021). It is a meta-ability (de la Fuente, 2017) associated with the development of personal psychological resources, among which are coping strategies (de la Fuente et al., 2020) and self-compassion (Biber & Ellis, 2019).

Coping strategies play a dominant role in the development of resilience and in the prevention of psychopathologies during the early stages of life (Grant et al., 2006), and are crucial for effectively responding to obstacles and challenges in subsequent stages (Skinner & Saxton, 2019). In general, using approach strategies —e.g., solving problems, seeking help and information, emotional support— is usually associated with better adjustment in childhood than using disengagement strategies —e.g., avoidance, self-blame— (Compas et al., 2017; Morales et al., 2012). Nonetheless, what determines the resilience a child develops over the long term in response to day-to-day stressors would be their

coping profile rather than the repeated use of certain strategies (Skinner et al., 2016). The concept of coping profiles assumes that people can deploy a wide repertoire of coping strategies making it possible to produce a more specific response to a stressful episode (Cheng et al., 2014).

The functionality of the students' coping profile seems to be closely associated with their degree of self-regulation. According to the Self-(SRL) vs. Externally-(ERL) Regulated Learning theory (de la Fuente, 2017), de la Fuente et al. (2020) found that students who exhibit high self-regulated behavior (high positive proactivity) resorted to a greater extent to a wide repertoire of approach coping strategies (problem-focused and emotion-focused). On the contrary, students with highly dys-regulated behavior, characterized by an active, but dysfunctional management of their behavior, used avoidance and distancing strategies to a greater degree. Finally, students not very active in self-regulation (non-regulated behavior) displayed a smaller range of coping strategies. Along these lines, Skinner and Saxton (2019) showed that children with an approach coping profile demonstrated good academic adjustment. In contrast, children with profiles that were largely based on disengagement exhibited high levels of maladjustment.

Another personal psychological resource closely related to self-regulation is self-compassion (Biber & Ellis, 2019; Semenchuk et al., 2018). According to Neff (2003), people with positive self-compassion understand that emotional pain is something inherent to the human condition although they are not trapped by the suffering, instead they fully accept it without judgement, aspiring to treat themselves with kindness and love. However, people with negative self-compassion overidentify with their own pain, which they feel to be unique, they criticize themselves harshly and blame themselves for, or refuse to acknowledge their suffering, which leads them to experience significant emotional discomfort. Various studies with adolescents and adults have shown self-compassion to be positively related to psychological wellbeing and negatively related to psychopathology (MacBeth & Gumley, 2012; Marsh et al., 2018; Zessin et al., 2015).

Therefore, positive self-compassion would be related to high self-regulation, insofar as it favors the development of an objective and equanimous perspective in threatening situations, the adaptive management of negative affect, and the maintenance of motivation towards the achievement of desired goals (Semenchuk et al., 2018; Terry & Leary, 2011). On the contrary, negative self-compassion has been associated with dysregulated behaviors, given that it entails the experimentation of negative emotions, ruminative thoughts, and the involvement in self-worth protection strategies (Petersen, 2014; Semenchuk et al., 2018).

Thus, self-compassion has been raised in recent years as a potentially valuable coping resource in the face of negative life events. Specifically, Allen and Leary (2010) and Neff et al. (2005) positively related self-compassion to the use of emotion-centered approach strategies, and negatively related it to disengagement strategies. Those researchers did not find a significant relationship between self-compassion and active-response strategies, although they did indicate the need for more research to clarify the matter.

There are have been very few studies about self-compassion in children. Nonetheless, some studies (Stolow et al., 2016; Sutton et al., 2018) have focused on children from 8-9 years old and up, given that in late childhood there is a notable increase in self-awareness and self-reflection. In accordance with this growing research trend, the present study examines the relationship between coping

strategies for everyday childhood stressors and self-compassion. More specifically, the study examines this relationship with a person-centered approach (Collins & Lanza, 2013). This approach posits that there may be subgroups of individuals who have similar levels of one or more variables, and who can be differentiated from other subgroups in this regard. The person-centered approach allows for more precise and specific understanding of the relationship between each subpopulation —e.g., coping profiles— and other variables —e.g., self-compassion— (Howard & Hoffman, 2018).

To date, we lack research focused on the study of coping profiles in childhood and their relationship with self-compassion. Nonetheless, the studies about coping profiles in adolescents and adults (Doron et al., 2015; Rzeszutek et al., 2017) and the previously mentioned SRL vs. ERL theory (de la Fuente, 2017) provide a solid background from which to hypothesize the identification of four coping profiles: one profile with high use of approach strategies and low use of disengagement strategies, which would characterize students with high degree of self-regulation; another profile showing high use of disengagement strategies and low use of approach strategies, typical of students with highly dys-regulated behavior; a third profile showing a mixed pattern (high use of some approach strategies and high use of some disengagement strategies), and a fourth profile characterized by generally low use of coping strategies. These last two profiles would be characteristic in non-regulated students.

In addition, according to SRL vs. ERL theory as well as the reviewed studies (Petersen, 2014; Semenchuk et al., 2018; Terry & Leary, 2011) that link positive self-compassion with self-regulated behavior and negative self-compassion with dys-regulated behavior, we hypothesize that the approach profile will exhibit significantly higher levels of positive self-compassion than the other profiles. In contrast, we expect that the predominantly disengagement profile will exhibit a higher level of negative self-compassion. The other two hypothesized profiles are expected to exhibit moderate levels of (positive and negative) self-compassion.

Finally, it is necessary to emphasize the role of variables such as gender and age in coping processes. In this regard, girls seem to be more prone to adopting approach strategies (Morales et al., 2012) whereas boys would tend to choose to avoid problems (Eschenback et al., 2017). In addition, it seems that, from the age of 7 onwards, coping is progressively done with more awareness and self-regulation, and is more diverse (Compas et al., 2017). Therefore, gender and age have been considered as covariates in the present study in order to control their effect.

Method

Participants

Using a convenience sampling, we recruited 487 students (249 girls, 51.1%; 238 boys, 48.9%) in primary education in Galicia (Spain), aged between 9 and 12 years old ($M_{age}=10.48$; SD=0.95). The inclusion criterion was for participants to be in late childhood (ages 9-12) at the time of the study. Exclusion criterion included failing to respond to more than 20% of the items (no cases excluded). Galicia has 827 primary schools, 5% of those schools were selected randomly and seven schools agreed to participate (six state funded schools, one private school; two were in urban locations, the other five were in rural or semi-urban locations).

Instruments

Coping strategies. We assessed six coping strategies related to four types of everyday stressors for children (school, family, peer relationships, and health) included in the Child Coping Scale (Morales-Rodríguez et al., 2012). Three of the strategies are approach type: active solution (four items; e.g., "I try to solve the problem using all possible means"), seeking information and guidance (four items; "I ask other people for advice on what to do"), and positive attitude (four items; "I think everything is going to sort out"). The other three strategies are disengagement type: keeping the problem to oneself (four items; "I keep my feelings to myself"), cognitive avoidance (three items; "I think of something else, so as not to remember the problem"), and behavioral avoidance (four items; "I am looking for something else to do, so as not to think about the problem"). In the present study, the following psychometric properties were obtained: active solution, $\alpha = .68$, $\omega = .68$ (95% CI [.64, .73]), $\chi^2 = 1.84$, df = 2, p = .398, GFI = 0.99, TLI = 1.00, CFI = 1.00, SRMR = .01, RMSEA < .01; seeking information and guidance, $\alpha = .73$, $\omega = .74$ (95% CI [.70, .78]), $\chi^2 = 0.53$, df = 2, p= .769, GFI = 1.00; TLI = 1.01, CFI = 1.00, SRMR = .01, RMSEA < .01; positive attitude, $\alpha = .79$, $\omega = .79$ (95% CI [.76, .82]), $\chi^2 =$ 8.38; df = 2, p = .015, GFI = 0.99, TLI = 0.97, CFI = 0.99, SRMR = .02, RMSEA = .08; keeping the problem to oneself, α = .83, ω = .83 (95% CI [.80, .85]), $\chi^2 = 1.16$; df = 1, p = .281, GFI = 0.99, TLI = 0.99, CFI = 1.00, SRMR = .01, RMSEA = .02; cognitive avoidance, α = .63, ω = .63 (95% CI [.57, .69]), GFI = 1.00, TLI = 1.00, CFI = 1.00, SRMR = .01, RMSEA < .01; behavioral avoidance, α = .72, $\omega = .72 (95\% \text{ CI } [.68, .76]), \chi^2 = 0.79, df = 2, p = .675, \text{GFI} = 1.00,$ TLI = 1.01, CFI = 1.00, SRMR = .01, RMSEA < .01. The responses were on a Likert-type scale (1 = Never, 5 = Always).

Self-compassion. We used the Self-Compassion Scale for Children (Sutton et al., 2018), adapted into Spanish (Ferradás et al., 2020). The instrument evaluates positive self-compassion (six items; "I try to be kind towards those things about myself I don't like") and negative self-compassion (six items; "When I fail at something important to me, I feel like I'm not good enough"). In the present study, the psychometric properties were: positive self-compassion, $\alpha = .68$, $\omega = .68$ (95% CI [.64, .73]), $\chi^2 = 23.39$, df = 9, p = .005, GFI = 0.98, TLI = 0.93, CFI = 96, SRMR = .04, RMSEA = .06; negative self-compassion, $\alpha = .73$, $\omega = .74$ (95% CI [.70, .77]), $\chi^2 = 9.73$; df = 8, p = .284, GFI = 0.99, TLI = 0.99, CFI = 0.99, SRMR = .02, RMSEA = .02. The responses were on a Likert-type scale (1 = Never, 5 = Always).

Procedure

We used a cross-sectional, ex post facto design. Data collection was performed in a single session, in the children's usual classrooms during their usual class time. Appropriate written informed consent from parents or guardians and the students was obtained prior to the data collection, in accordance with the ethical standards laid out in the Declaration of Helsinki and the Ethics Committee of the University of A Coruña (ethical code 27/02/2019).

Data Analysis

Firstly, we performed a descriptive analysis (mean, standard deviation, asymmetry, and kurtosis) and calculated Pearson correlations for the study variables. Secondly, the coping profiles

were identified via latent profile analysis (LPA), using MPlus 8.5 (Muthén & Muthén, 1998-2020). The decision about the optimum number of profiles was based on consideration of the following criteria (Nylund et al., 2007): indicators of fit (Akaike information criterion, AIC; Schwarz Bayesian information criterion, BIC; BIC adjusted for the sample size, SSA-BIC; Vuong-Lo-Mendell-Rubin likelihood ratio test, VLMRT, and the Lo-Mendell-Rubin likelihood ratio test of model fit, LMR), the number in each profile, entropy, parsimony, and the conceptual coherence of the groups identified. As a general rule, the solution with the lowest values of AIC, BIC, and SSA-BIC has the best relative fit, but these parameters are only guidelines. The key criteria are the statistics related to VLMRT and LMR. A significant p value $(p \le .05)$ associated with VLMRT and LMR indicates that a model with K profiles has a significantly better fit than a model with K-1 profiles. In addition, profiles representing less than 5% of the total sample are typically considered spurious, suggesting that too many profiles have been extracted (Hipp & Bauer, 2016). Entropy determines the level of classification accuracy of the selected model (entropy > .80 indicates high discrimination between profiles; Nylund et al., 2018). Additionally, a MANOVA was performed to determine significant differences in the six coping strategies between the extracted profiles. Finally, the differences between the coping profiles in positive and negative self-compassion were determined via MANCOVA. Gender and age were taken as covariables. These analyses were performed using SPSS 26.0 (IBM Corp, 2019).

Results

The descriptive statistics and correlation matrix are given in Table 1.

Identification of Coping Profiles

The fit of various models of latent profiles were evaluated (see Table 2), and the analysis was stopped on the model with five profiles because: (a) although the values for AIC, BIC, and SSA-BIC were slightly lower in the five-profile model than the four-profile model,

	1	2	3	4	5	6	7	8
1. AS	_							
2. SIG	.44**	-						
3. PA	.42**	.28**	-					
4. KP	10*	16**	01	-				
5. CA	.07	.08	.16**	.29**	-			
6. BA	.09	.07	.16**	.32**	.79**	-		
7. PSC	.41**	.40**	.38**	04	.07	.06	-	
8. NSC	.01	.06	12**	.35**	.18**	.18**	10*	-
M	3.71	3.15	3.93	2.52	2.63	2.69	3.56	2.6
SD	0.95	1.03	1.00	1.15	1.02	0.99	0.78	0.8
Asymmetry	-0.53	-0.02	-0.86	0.57	0.26	0.18	-0.37	0.4
Kurtosis	-0.33	-0.81	-0.04	-0.43	-0.57	-0.49	-0.05	-0.3

Note: AS = Active Solution; SIG = Seeking information and guidance; PA = Positive Attitude; KP = Keeping the problem to oneself; CA = Cognitive Avoidance; BA = Behavioral Avoidance; PSC = Positive self-compassion; NSC = Negative self-compassion; $*p \le .05; **p < .001$

 $\label{eq:Table 2} {\it Table 2}$ Indicators of Fit and Classification Accuracy for Each Model

	Latent profile models					
	Two classes	Three classes	Four classes	Five classes		
AIC	8112.294	7961.606	7814.144	7753.426		
BIC	8191.871	8070.501	7952.357	7920.957		
SSA-BIC	8131.566	7987.978	7847.616	7793.999		
VLMRT	337.093**	164.688*	141.042**	74.717		
LMR	329.487**	160.972*	137.859**	73.032		
Entropy	0.725	0.716	0.816	0.798		
Number of Groups with $n \le 5\%$	0	0	0	0		

Note: AIC = Akaike Information Criterion; BIC = Schwarz Bayesian Information Criterion; SSA-BIC = BIC adjusted for the sample size; VLMRT = Vuong–Lo–Mendell–Rubin likelihood ratio test; LMR = Lo–Mendell–Rubin likelihood ratio test of model fit; *p < .01; **p < .001

the VLMRT and LMR of the five-profile model had a p value that was not statistically significant (p > .05), indicating that this model did not have a better fit than the four-profile model; (b) the entropy value for the four-profile model (.816) was higher than the five-profile model (.798), suggesting slightly better classification accuracy for the former; and (c) looking at the groups in the five-profile model, there were two groups that were qualitatively very similar to each other. This was not seen in the four-profile model, and based on the criterion of parsimony, it seemed reasonable to select the four-profile model as having the best fit.

As additional evidence, the *a posteriori* probability coefficient of each subject belonging to a class were close to 100% (between 88.1% and 91.9%). In addition, the results of the MANOVA demonstrated statistically significant differences between the four profiles in the six strategies: active solution ($F(3,483) = 29.66, p < .001, \eta_p^2 = .16$), seeking information and guidance ($F(3,483) = 21.33, p < .001, \eta_p^2 = .12$), positive attitude ($F(3,483) = 108.42, p < .001, \eta_p^2 = .40$), keeping the problem to oneself ($F(3,483) = 19.68, p < .001, \eta_p^2 = .11$), cognitive avoidance ($F(3,483) = 555.44, p < .001, \eta_p^2 = .78$), and behavioral avoidance ($F(3,483) = 353.64, p < .001, \eta_p^2 = .69$). The effect size was moderate in the variables seeking information and guidance and keeping the problem to oneself, and large in the other variables.

Characterization of the Identified Coping Profiles

Table 3 shows the mean scores of the subjects in each of the four profiles in the selected model. Based on these scores, the first profile was made up of students with low use of the six coping strategies (low use of coping strategies profile, LCP). The second profile exhibited very moderate use of the six strategies (moderate mixed coping profile, MMP). The third profile characterized students who were active in coping with everyday stressors, combining high use of the three approach strategies with low use of the three disengagement strategies (approach coping profile, ACP). The fourth profile used all of the coping strategies examined, although the most often-used were the disengagement type strategies, particularly cognitive and behavioral avoidance (high mixed coping profile, HMP). A graphical representation of these profiles is given in Figure 1.

Table 3 Description of the Profiles Identified						
			Confidence Intervals			
Profiles	M	SE	Lower 5%	Upper 5%		
Low Use of Strategies						
Active Solution	2.82 (-0.91)	0.16	2.56	3.09		
Seeking Information and Guidance	2.38 (-0.74)	0.16	2.11	2.65		
Positive Attitude	2.49 (-1.57)	0.17	2.20	2.77		
Keeping the Problem to Oneself	2.25 (-0.23)	0.16	1.99	2.51		
Cognitive Avoidance	1.67 (-0.97)	0.09	1.52	1.82		
Behavioral Avoidance	1.81 (-0.91)	0.12	1.61	2.01		
Mixed Moderate Coping						
Active Solution	3.70 (-0.01)	0.07	3.58	3.83		
Seeking Information and Guidance	3.13 (-0.05)	0.08	2.99	3.27		
Positive Attitude	4.02 (0.10)	0.07	3.90	4.14		
Keeping the Problem to Oneself	2.63 (0.07)	0.09	2.48	2.78		
Cognitive Avoidance	2.77 (0.14)	0.08	2.64	2.89		
Behavioral Avoidance	2.82 (0.13)	0.07	2.70	2.94		
Approach Coping						
Active Solution	4.17 (0.46)	0.11	3.99	4.34		
Seeking Information and Guidance	3.56 (0.41)	0.12	3.36	3.76		
Positive Attitude	4.45 (0.57)	0.12	4.26	4.64		
Keeping the Problem to Oneself	1.91 (-0.55)	0.11	1.74	2.08		
Cognitive Avoidance	1.50 (-1.18)	0.14	1.28	1.73		
Behavioral Avoidance	1.65 (-1.10)	0.12	1.45	1.85		
High Mixed Coping						
Active Solution	3.90 (0.23)	0.11	3.72	4.08		
Seeking Information and Guidance	3.37 (0.28)	0.13	3.15	3.58		
Positive Attitude	4.22 (0.31)	0.11	4.04	4.39		
Keeping the Problem to Oneself	3.07 (0.52)	0.15	2.83	3.32		
Cognitive Avoidance	4.12 (1.50)	0.10	3.96	4.28		
Behavioral Avoidance	4.07 (1.42)	0.10	3.90	4.24		

Relationships between Coping Profiles and Self-compassion

Note: Normalized mean scores are given in brackets (z)

The results of the MANCOVA showed statistically significant differences between the profiles in positive self-compassion ($F(3,483)=16.26, p<.001, \eta_p^2=.09$) and negative self-compassion ($F(3,483)=5.71, p=.001, \eta_p^2=.03$). The sizes of the differences were medium and small, respectively.

The descriptive statistics of the coping profiles in the two self-compassion variables are presented in Table 4. The highest scores related to positive self-compassion were for ACP and HMP, and there were significant differences with MMP and LCP. More specifically, the differences with LCP were large (difference ACP-LCP, d = 1.00, 95% CI [0.81, 1.19]; difference HMP-LCP, d = 0.94, 95% CI [0.75, 1.13]), while the differences with MMP were moderate (difference ACP-MMP, d = 0.44, 95% CI [0.26, 0.62]; difference HMP-MMP, d = 0.35, 95% CI [0.17, 0.53]).

In terms of negative self-compassion, the ACP had the lowest scores, significantly different from the other three profiles. The differences with the HMP were moderate (d = 0.65, 95% CI [0.47,

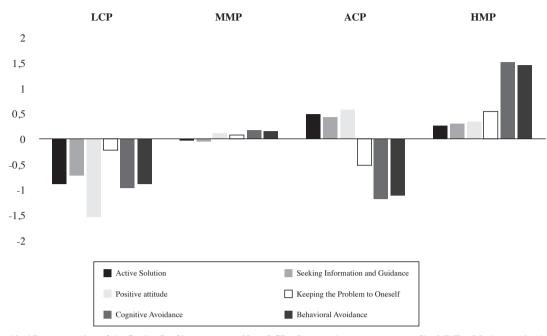


Figure 1. Graphical Representation of the Coping Profiles (z scores). *Note*: LCP = Low coping strategy use profile; MMP = Moderate mixed coping profile; ACP = Approach coping profile; HMP = High mixed coping profile

0.83]), while the differences with the MMP (d = 0.36,95% CI [0.18, 0.54]) and the LCP (d = 0.23,95% CI [0.05,0.41]) were small. At the opposite end of the scale, the HMP had the highest score in negative self-compassion, although there were no statistically significant differences with regard to MMP and LCP.

In terms of covariables, gender demonstrated a significant, albeit small, effect (λ_{Wilks} = .98, F(485) = 4.85, p < .001, η_p^2 = .02). The girls had higher scores in both types of self-compassion, but it was only statistically significant in positive self-compassion (t(485) = -2.58, p = .01, d = 0.18). The effect of age was not significant (λ_{Wilks} = .99, F(3,483) = 0.05, p = .794, η_p^2 = .001).

Discussion

The present study aimed primarily to identify different coping profiles for day-to-day childhood stress. Secondly, those profiles were examined to determine whether they differed in terms of self-compassion. Our results indicate the existence of four coping profiles, although the composition of some of them do not exactly match our initial hypothesis.

Descriptive Statistics (Mo		<i>Table</i> Standar If-comp	d Devi		of the (Coping	Profile	s in
	Coping Profiles							
	LCP		MMP		ACP		HMP	
	M	SD	M	SD	M	SD	M	SD
Positive Self-compassion	3.07	0.79	3.51	0.75	3.84	0.76	3.77	0.70
Negative Self-compassion	2.57	0.94	2.67	0.85	2.35	0.91	2.93	0.86

Note: LCP = Low coping strategy use profile; MMP = Moderate mixed coping profile; ACF = Approach coping profile; HMP = High mixed coping profile

We identified a group of children (ACP) who predominantly face everyday stressors with approach strategies. This profile tends to respond directly to challenges, seeking information and advice from other people, and demonstrating a positive attitude. In addition, the use of disengagement strategies is very low in this profile. The eminently proactive behavior in the management of daily stressors shown by ACP is prototypical of highly self-regulated students (de la Fuente et al., 2020), and is associated with adaptive functioning in childhood (Skinner et al., 2016; Robson et al., 2020). From this consideration, ACP constitutes a highly desirable coping profile.

At the opposite end of the spectrum, we identified a profile (LCP) characterized by low scores in all of the coping strategies. Based on that, this group would not respond actively to stressors, but nor would they avoid them. This poor response to daily demands seems to be associated with students who show a non-regulated behavior (de la Fuente et al., 2020). Thus, this type of students would find themselves at the mercy of the externally-regulatory system of the context (de la Fuente, 2017) when managing threats. Although, as far as we are aware, this profile is new to research that has looked at childhood stress from a profile-based approach, it has been documented in the adult population (Doron et al., 2015; Rzeszutek et al., 2017). In those studies, the LCP was related to lower levels of depressive symptoms and perceived stress than those coping profiles more salient in disengagement strategies. Nonetheless, assuming that non-regulation behavior has been associated with low perceived health (Pachón-Basallo et al., 2021), the functionality of the LCP is questionable.

We also noted the existence of a group of children (HMP) who used both approach and disengagement strategies, although the latter (especially cognitive and behavioral avoidance) to a much greater extent. This profile may characterize children who respond actively to everyday challenges, although in an inconsistent way (sometimes, approaching the demands and in others, disengaging

from them). This behavioral pattern seems typical of dys-regulated students, in which an active, but inadequate management of their own behavior prevails (de la Fuente, 2017). This would explain the limited functionality of HMP, as other studies with adult populations have shown (Doron et al., 2015).

Finally, in contrast to our hypothesis, we noted the existence of a group of children (MMP) who resort to the six strategies we assessed, albeit with in moderation compared to the HMP group. This would indicate a tendency to easily give up when coping with everyday challenges, both when responding actively and when they choose not to act. The broad spectrum of everyday demands requires children to be able to select the best strategy for each given challenge. Consequently, the limited coping response shown by the MMP could be indicating a notable deficit of self-regulatory competencies, as suggested by other studies (Asikainen et al., 2018). Therefore, it could be assumed that the MMP would be related to patterns of low behavioral self-regulation, which could range between non-regulation and dys-regulation (de la Fuente et al., 2020).

Regarding the second objective, the profiles we identified differed significantly in self-compassion. The profiles in which children employed a high level of approach strategies (ACP and HMP) exhibited higher levels of positive self-compassion than the profiles that did not show a clear response to everyday stressors (MMP and LCP). This finding seems to indicate that children who are more proactive in regulating their coping responses would be more self-compassionate than those more passive in terms of selfregulation. In this regard, other studies (Allen & Leary, 2010; Neff et al., 2005) found that positive self-compassion has been related to approach strategies (e.g., positive attitude). However, unlike those studies, our results suggest that primary control approach strategies (active solutions and seeking information and guidance) are also related to positive self-compassion. It is possible that these differences lie in what Allen and Leary (2010) and Neff et al. (2005) assessed as the relationship between positive selfcompassion and coping after a failure which may be interpreted as uncontrollable. At any rate, we agree with those authors about the need for more research about the relationship between primary control and positive self-compassion.

In addition, and in line with the studies cited above, the profiles that adopt disengagement strategies (MMP and HMP) — along with the profile that demonstrated generally low use of coping strategies (LCP) - presented significantly higher levels of negative selfcompassion. This was especially surprising from the HMP because, along with the ACP, they exhibited the highest levels of positive self-compassion. This seems to confirm the dysregulated behavior of the HMP, insofar this profile combines adaptive and maladaptive strategies to a high degree. Probably, the use of the latter explains the high degree of negative self-dialogue exhibited by this group. Disengagement strategies are related to an active, but inadequate self-regulation of cognitions, emotions, and behaviors (de la Fuente, 2017), so it is possible that the self-critical voice comes in the face of the inability to effectively respond to challenges. In fact, negative self-compassion is correlated with the lack of perceived self-control, the inability to regulate difficult emotions, and the involvement in risky behaviors such as self-handicapping and sandbagging (Inwood & Ferrari, 2018; Petersen, 2014).

The same argument may be extended to the MMP group. This profile demonstrated similar level of negative self-compassion to the HMP. However, the level of positive self-compassion was

significantly lower. Assuming that the aforementioned explanation is plausible with regard to the low self-regulatory competence of the MMP when adapting the strategy to the specific challenge, it is possible that this ineffectiveness makes it harder for the children with this profile to treat themselves with kindness and affection.

The LCP demonstrated a similar relationship to self-compassion as the MMP. This finding could be interpreted in light of the reactive behavior that seems to characterize children who belong to these two coping profiles. Thus, it is plausible that the absence of an active response to daily demands favors the development of a ferociously self-critical internal talk (self-blame, self-disapproval), which would encourage overidentification with suffering. Although tentative, this explanation would be consistent with the results of other studies linking non-regulated behavior with poor perceived mental health (Morosanova et al., 2020; Pachón-Basallo et al., 2021). Therefore, the tendency to experience high negative self-compassion and low positive self-compassion could indicate that the absence of coping responses, evidenced by the LCP, may be because the children with this profile perceive themselves to be powerless against the stressors.

In contrast, the ACP is the profile that exhibited the highest level of positive self-compassion and the lowest level of negative self-compassion. This result supports the particularly adaptive nature of this coping profile (Skinner et al., 2016), which would reflect a high level of self-regulatory competence when dealing with everyday stressors. In other words, the proactive attitude and behavior shown by the ACP would favor the development of a compassionate voice, as evidenced by various studies (Biber & Ellis, 2019; Semenchuk et al., 2018). In addition, it seems to support the idea of positive self-compassion as a personal resource which, in difficult situations, is related to a lower tendency to "catastrophize" negative events, to develop psychopathological states, and to adopt avoidance behaviors (Allen & Leary, 2010; Marsh et al., 2018; Stolow et al., 2016).

Overall, the results from this study are a notable contribution to the study of the relationship between coping with stress and self-compassion in such a little explored population. In this regard, our findings support the position of recent research (Skinner et al., 2016; Skinner & Saxton, 2019) that has advocated studying childhood stress from the perspective of flexible coping repertoires. Insofar as the profiles we identified differ in their selfcompassion, these results make it possible to identify groups of children whose coping resources for everyday stressors are more and less adaptive. In addition, our findings may have implications for intervention. The development of emotional competencies that enable an adaptive management of the multiple and changing daily demands constitute a priority line within the initiatives aimed at promoting the mental health of youth (World Health Organization, 2020). In this scenario, progressive training in self-compassion could be an important psychological resource to be incorporated in the interventions that are currently being developed on children's stress (e.g., McDaniel et al., 2018). Likewise, these types of interventions should promote the development of self-regulation, so that children acquire metacognitive, meta-emotional, and metabehavioral skills to identify and use the appropriate strategy for each specific demand (Cheng et al., 2014).

Naturally, we must consider the limitations of the study. First, the study design does not allow causal relationships to be established between the coping profiles and self-compassion. That would require other types of design (e.g., longitudinal) to

clarify the matter. Second, although the potentially participating schools have been randomly selected, only a small number of them have provided their express consent, which limits the possible generalizability of the results found. Therefore, new studies with larger and more representative samples are needed. In the same vein, future studies should consider the influence of variables not addressed in this study, such as students' socioeconomic status or parenting educational styles. Third, the application of self-report instruments may limit the veracity of the results, particularly in such a young population. The inclusion of observation scales, deep interviews, or experiences would make it possible to confirm the information collected. Fourth, we analyzed coping with childhood stress considering the everyday challenges as a whole. Future studies may examine each context specifically (family, academic,

social, and health) to determine possible differences in the makeup of the coping profiles and their relationship with self-compassion. Fifth, although it seems reasonable to explain the relationship between coping profiles and self-compassion based on the level and typology (self-regulatory, non-regulatory, dys-regulatory) of children's regulatory behavior, these variables have not been directly analyzed. This issue could constitute an interesting line of future research. Finally, in this study, the effect of gender and age has been statistically controlled. However, considering that numerous studies associate greater self-regulatory competence with female gender (Matthews et al., 2009) and age (Compas et al., 2017), future research could specifically analyze the effect of these variables on children's self-regulatory skills when coping with everyday stressors.

References

- Allen, A., & Leary, M. R. (2010). Self-compassion, stress, and coping. Social and Personality Psychology Compass, 4(2), 107-118. https://doi.org/10.1111/j.1751-9004.2009.00246.x
- Asikainen, H., Hailikari, T., & Mattsson, M. (2018). The interplay between academic emotions, psychological flexibility and self-regulation as predictors of academic achievement. *Journal of Further and Higher Education*, 42(4), 439-453. https://doi.org/10.1080/0309877X.2017.1 281889
- Biber, D. D., & Ellis, R. (2019). The effect of self-compassion on the self-regulation of health behaviors: A systematic review. *Journal of Health Psychology*, 24(14), 2060-2071. https://doi. org/10.1177/1359105317713361
- Cheng, C., Lau, H.-P. B., & Chan, M. P. S. (2014). Coping flexibility and psychological adjustment to stressful life changes: A meta-analytic review. *Psychological Bulletin*, 140(6), 1582-1607. https://doi. org/10.1037/a0037913
- Collins, L. M., & Lanza, S. T. (2013). Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences. Wiley.
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A metaanalysis and narrative review. *Psychological Bulletin*, 143(9), 939-991. https://doi.org/10.1037/bul0000110
- de la Fuente, J. (2017). Theory of Self- vs. Externally-Regulated Learning™: Fundamentals, evidence, and applicability. *Frontiers in Psychology*, 8, 1675. https://doi.org/10.3389/fpsyg.2017.01675
- de la Fuente, J., Amate, J., González-Torres, M. C., Artuch, R., García-Torrecillas, J. M., & Fadda, S. (2020). Effects of levels of self-regulation and regulatory teaching on strategies for coping with academic stress in undergraduate students. *Frontiers in Psychology*, 11:22. https://doi.org/10.3389/fpsyg.2020.00022
- Doron, J., Trouillet, R., Maneveau, A., Neveu, D., & Ninot, G. (2015). Coping profiles, perceived stress and health-related behaviors: A cluster analysis approach. *Health Promotion International*, 30(1), 88-100. https://doi.org/10.1093/heapro/dau090
- Eschenbeck, H., Kohlmann, C.-W., & Lohaus, A. (2007). Gender differences in coping strategies in children and adolescents. *Journal* of *Individual Differences*, 28(1), 18-26. https://doi.org/10.1027/1614-0001.28.1.18
- Ferradás, M. M., Freire, C., & Prada, L. (2020). Capacidad predictiva de la autocompasión sobre el afrontamiento del estrés en la etapa de educación primaria [Predictive capacity of self-compassion on coping with stress in Primary Education]. In M. M. Molero, A. Martos, A. B. Barragán, M. M. Simón, M. Sisto, R. M. del Pino, B. M. Tortosa, J. J. Gázquez, & M. C. Pérez-Fuentes (Comps.), Variables psicológicas y educativas para la intervención en el ámbito escolar. Nuevas realidades de análisis (pp. 35-45). Dykinson.

- Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., Gipson, P. Y., Campbell, A. J., Krochock, K., & Westerholm, R. I. (2006). Stressors and child and adolescent psychopathology: Evidence of moderating and mediating effects. *Clinical Psychology Review*, 26(3), 257-283. https://doi.org/10.1016/j.cpr.2005.06.011
- Hipp, J. R., & Bauer, D. J. (2016). Local solutions in the estimation of growth mixture models. *Psychological Methods*, 11(1), 36-53. https:// doi.org/10.1037/1082-989X.11.1.36
- Howard, M. C., & Hoffman, M. E. (2018). Variable-centered, person-centered, and person-specific approaches: Where theory meets the method. *Organizational Research Methods*, 21(4), 846-876. https://doi.org/10.1177/1094428117744021
- IBM Corp (2019). SPSS STATISTICS for Windows, Version 26.0. IBM Corp.
- Inwood, E., & Ferrari, M. (2018). Mechanisms of change in the relationship between self-compassion, emotion regulation, and mental health: A systematic review. Applied Psychology: Health and Well-Being, 10(2), 215-235. https://doi.org/10.1111/aphw.12127
- MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. Clinical Psychology Review, 32, 545-552. https://doi.org/10.1016/j.cpr.2012.06.003
- Marsh, I. C., Chan, S. W. Y., & MacBeth, A. (2018). Self-compassion and psychological distress in adolescents—A meta-analysis. *Mindfulness*, 9(4), 1011-1027. https://doi.org/10.1007/s12671-017-0850-7
- Matthews, J. S., Ponitz, C. C., & Morrison, F. J. (2009). Early gender differences in self-regulation and academic achievement. *Journal of Educational Psychology*, 101(3), 689-704. https://doi.org/10.1037/a0014240
- McDaniel, S. C., Lochman, J. E., Tomek, S., Powell, N., Irwin, A., & Kerr, S. (2018). Reducing risk for emotional and behavioral disorders in late elementary school: A comparison of two targeted interventions. *Behavioral Disorders*, 43(3), 370-382. https://doi.org/10.1177/0198742917747595
- Morales, F., Trianes, M., & Miranda, J. (2012). Gender and age differences in how children cope with daily stress. *Electronic Journal of Research in Educational Psychology*, 10(26), 95-110. http://ojs.ual.es/ojs/index.php/EJREP/article/view/1486
- Morales-Rodríguez, F. M., Trianes, M. V., Blanca, M. J., Miranda, J., Escobar, M., & Fernández-Baena, F. J. (2012). Escala de Afrontamiento para Niños (EAN): propiedades psicométricas [Children's Coping Scale: Psychometric properties]. *Anales de Psicología*, 28(2), 475-483. https://doi.org/10.6018/analesps.28.2.136221
- Morosanova, V., Fomina, T., & Filippova, E. (2020). The relationship between the conscious self-regulation of schoolchildren's learning activity, their test anxiety level, and the final exam result in mathematics. *Behavioral Sciences*, 10(16). https://doi.org/10.3390/bs10010016
- Muthén, L. K., & Muthén, B. O. (1998-2020). Mplus User's Guide, 6th ed. Muthén & Muthén.

- Neff, K. D. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. Self and Identity, 2(2), 85-101. https:// doi.org/10.1080/15298860309129863
- Neff, K. D., Hseih, Y., & Dejitthirat, K. (2005). Self-compassion, achievement goals, and coping with academic failure. Self and Identity, 4(3), 263-287. https://doi.org/10.1080/13576500444000317
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. Structural Equation Modeling: A Multidisciplinary Journal, 14(4), 535-569. https://doi. org/10.1080/10705510701575396
- Nylund-Gibson, K. L., & Choi, A. Y. (2018). Ten frequently asked questions about latent class analysis. *Translational Issues in Psychological Science*, 4(4), 440-461. https://doi.org/10.1037/tps0000176
- Pachón-Basallo, M., de la Fuente, J., & Gonzáles-Torres, M. C. (2021).
 Regulation/non-regulation/dys-regulation of health behavior, psychological reactance, and health of university undergraduate students. *International Journal of Environmental Research and Public Health*, 18(7), 3793. https://doi.org/10.3390/ijerph18073793
- Petersen, L. E. (2014). Self-compassion and self-protection strategies: The impact of self-compassion on the use of self-handicapping and sandbagging. *Personality and Individual Differences*, 56, 133-138. https://doi.org/10.1016/j.paid.2013.08.036
- Robson, D. A., Allen, M. S., & Howard, S. J. (2020). Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychological Bulletin*, 146(4), 324-354. https://doi.org/10.1037/bul0000227
- Rzeszutek, M., Gruszczynska, E., & Firlag-Burkacka, E. (2017). Coping profiles and subjective well-being among people living with HIV: Less intensive coping corresponds with better well-being. *Quality of Life Research*, 26(10), 2805-2814. https://doi.org/10.1007/s11136-017-1612-7
- Semenchuk, B. N., Strachan, S. M., & Fortier, M. (2018). Self-compassion and the self-regulation of exercise: Reactions to recalled exercise setbacks. *Journal of Sport and Exercise Psychology*, 40(1), 31-39. https://doi.org/10.1123/jsep.2017-0242

- Skinner, E. A., Pitzer, J. R., & Steele, J. S. (2016). Can student engagement serve as a motivational resource for academic coping, persistence, and learning during late elementary and early middle school? *Developmental Psychology*, 52(12), 2099-2117. https://doi. org/10.1037/dev0000232
- Skinner, E. A., & Saxton, E. A. (2019). The development of academic coping in children and youth: A comprehensive review and critique. Developmental Psychology, 53, 100870. https://doi.org/10.1016/j.dr.2019.100870
- Stolow, D., Zuroff, D. C., Young, J. F., Karlin, R. A., & Abela, J. R. (2016). A prospective examination of self-compassion as a predictor of depressive symptoms in children and adolescents. *Journal of Social and Clinical Psychology*, 35(1), 1-20. https://doi.org/10.1521/jscp.2016.35.1.1
- Sutton, E., Schonert-Reichl, K. A., Wu, A. D., & Lawlor, M. D. (2018). Evaluating the reliability and validity of the Self-Compassion Scale Short Form adapted for children ages 8-12. *Child Indicators Research*, 11, 1217-1236. https://doi.org/10.1007/s12187-017-9470-y
- Terry, M. L., & Leary, M. R. (2011). Self-compassion, self-regulation, and health. *Self and Identity*, 10(3), 352-362. https://doi.org/10.1080/1529 8868.2011.558404
- UNICEF, United Nations Children's Fund. (2018). Operational Guidelines. Community-based mental health and psychosocial sup-port in Humanitarian Settings: Three-tiered support for children and families. https://www.unicef.org/media/52171/file
- Wright, M., Banerjee, R., Hoek, W., Rieffe, C., & Novin, S. (2010). Depression and social anxiety in children: Differential links with coping strategies. *Journal of Abnormal Child Psychology*, 38, 405-419. https://doi.org/10.1007/s10802-009-9375-4
- World Health Organization, Newsroom, Fact sheets (2020). Adolescent mental health. https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health
- Zessin, U., Dickhauser, O., & Garbade, S. (2015). The relationship between self-compassion and well-being: A meta-analysis. *Applied Psychology: Health and Well-Being*, 7(3), 340-364. https://doi.org/10.1111/aphw.12051