

# Adolescents' Coping Strategies Influence Their Psychosocial Well-Being

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## ABSTRACT

**Aims:** Adolescence is a developmental period characterized by many physical, psychological and social transformations, eliciting experiences of emotional arousal that might increase psychopathology risk (e.g. affective and behavioral disorders). The study tested adolescents' use of coping strategies and their psychosocial well-being.

**Method:** Participants (N 1060) were Italian students, 14 to 21 years old, attending senior high school or first years of university, who completed a survey. Psychosocial well-being, and its relation to coping strategy use, was assessed by measuring subjective health perception, life satisfaction, positive and negative affect, emotional and social loneliness.

**Results:** Adolescents were found to use the healthier strategies of Seeking social support, Problem Orientation, and Positive attitude more than the less functional strategy of Avoidance; a Transcending Orientation was also not much reported. Preferences for strategy type formed a coherent pattern - e.g., Problem Orientation was positively associated with Positive attitude. Preferences for strategy type were significantly associated to well-being levels in the expected direction. Avoidance was found to be the most important coping strategy, negatively associated with most well-being indicators, e.g. predicting greater Emotional loneliness, and lower perceived Health; vice versa, Seeking social support and Problem solving were associated with lesser Social loneliness and higher levels of Positive affect and Life satisfaction. Although result patterns were quite similar across age groups and sex, some differences were observed.

**Conclusion:** Preferences for more or less functional coping strategies impact on well-being, suggesting that a better understanding of these processes in adolescence and early adulthood may help us understand individual differences in mental health and adjustment.

*Keywords: Adolescence, coping strategies, psychosocial well-being, Italian adolescents*

## 1.INTRODUCTION

Adolescence is a crucial life period in which several physical, cognitive, emotional and behavioral changes occur, including attachment-pattern changes that imply changes in emotional experiences about self, parents and peers [1]. Such changes imply frequent new and intense emotional experiences - more so than occurs in other developmental stages [2] [3] - that need to be coped with in the best possible way. For instance, adolescents frequently report school-related stressors, including being victims of bullying, as well as interpersonal stressors such as conflicts with parents, siblings, and peers. Such daily stressors are significantly related to psychological symptoms, including increased emotional instability, and a higher frequency of both internalizing (e.g., depression) and externalizing (e.g., antisocial behaviors) disorders [4] [5][6]. Compared with other life stages, we might thus say that adolescence is a period that requires complex adaptation processes in order to adjust, and respond, to the rapidly internal and external environment changes and challenges. In what ways adolescents cope with such changes and challenges is therefore of paramount importance. Indeed, the literature shows that coping difficulties in adolescence are linked with disorders such as depression, anxiety, and problem behavior [8] [9] [4], and that children's and adolescents' coping abilities play a significant moderating role on psychopathology. Recent developments in neuroscience and neurobiology have recently pointed out that regulation and coping problems might be related to the fact that prefrontal cortical regions in the brain that support regulatory functions are not yet fully developed during adolescence. As a consequence, motivational reward cues are particularly salient, leading to greater risk of suboptimal choices, i.e., to less effective coping in order to implement goal-oriented behavior [7][8].

We might define coping as the process that concerns the continuous evaluation (or appraisal) of how a stressful event encountered by the person unfolds, given the involved people's mental or behavioral actions -see [9][10]. The literature, starting with Lazarus' extremely influential analysis of coping, back in the last decades of the XX century [9], has for long time distinguished two main coping types: Problem-focused coping, aimed at changing or altering the source of stress, at doing something to remove or evade the stressor, and emotion-focused coping, aimed at minimizing, reducing the distress associated with the stressor. This distinction has later been questioned as too simple to account for the complexity and multidimensionality of coping, leading to theoretical models that emphasized the need to consider coping strategies less broadly, i.e., analyzing strategies in terms of their functionality and type of process or activity they imply. Finer theoretical distinctions as regards strategy types, and related theoretically-based assessment measures, were therefore introduced, such as distinguishing between

44 actual actions and their effects, and mental ones and their effects - e.g., turning to others to obtain instrumental  
45 support, or positively re-interpreting the stressor situation[9]. Other distinctions at the basis of many empirical  
46 studies focused on weather coping is functional or not, adaptive or maladaptive, harmful or helpful, based on  
47 approaching versus avoiding the stressor, and consisting of voluntary or involuntary responses [3][4][10][11][12].

48 An important point to consider, furthermore, is that in the last two decades coping has often been discussed in  
49 relation to *emotion regulation*. Emotion regulation is a 'younger' construct whose development actually is strictly  
50 related, historically, to the long-standing research tradition on coping (see [13] [14] for extensive reviews)  
51 which originated the mentioned distinction between problem-focused and emotion-focused coping. As coping refers  
52 to non-emotional actions aimed at achieving non-emotional goals, as well as to emotional ones, coping is a  
53 conceptually broader category than emotion regulation [13]. On the other hand, as coping often refers to strategies  
54 that might be conceptualized as emotion-focused (e.g., avoidant thinking, seeking social support, and re-appraising  
55 the importance or meaning of the stressor), it is not surprising that, as a perusal of studies in the last two decades  
56 shows, emotion regulation studies and coping studies often overlap at least to some extent as regards the  
57 theoretical models they refer to, and the operationalization of their constructs—for reviews and studies that include  
58 both constructs see [10] [11] [12] [13]. For instance the “emotion regulation strategies” reviewed by [15] include  
59 *avoidance* and *problem solving*, strategies typically conceptualized and assessed in studies of coping, as well as  
60 *reappraisal*, a strategy that refers to re-evaluating the eliciting event and its effects in order to reduce distress, i.e.,  
61 a mental process, much discussed in the emotion regulation literature [13] [14] [15], that the coping literature refers  
62 to as positive problem orientation, positive attitude, positive reframing, positive refocusing [9] [11] [16]. When  
63 focusing on “cognitive coping”, coping is at times actually defined as “an aspect of emotion regulation” [16  
64 Garnefsky], This at least partial conceptual overlap between the *coping* and the *emotion regulation* research  
65 domains, as well as the great variety of measures assessing coping and/or regulation, measures whose  
66 conceptualization and operationalization differ to a varying extent one from the other [3] [4] [10] [11] [12] [16  
67 Garnefsky], imply that the results obtained across studies in the two fields are not easily comparable nor  
68 integrated, making it advisable to refer to *specific* aspects of coping, and to specific measures, when discussing  
69 coping strategies.

## 70 1.1. Aims and Hypotheses

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72 From infancy through early adulthood, the preference for this or that coping strategy is likely to change as a  
73 function of individual experiences with, and knowledge about, the likely outcome of this or that strategy – e.g.,  
74 recurring to social support or employing a problem-solving approach. Since we might hypothesize that adolescence  
75 is a **very** crucial period in the development and maturation of coping strategies, the analysis of such strategies may  
76 help us better understand individual differences in psychosocial well-being and adjustment [3], the onset of  
77 psychosocial difficulties and **psychopathology development** [15] [16] [17] [18] [19], and, in the end, may help us  
78 prevent problems linked with the use of dysfunctional coping (and/or regulation) strategies in adulthood.  
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80 The present study<sup>2</sup>— part of a larger research project on adolescents' and adults' emotional competences, in  
81 relation to a variety of socio-demographic and personal traits, and to well-being (see [20] [21] [22] [23] for details on  
82 **methods and results with regard to specific issues**) aimed to contribute to a better understanding of which coping  
83 strategies adolescents use and with what frequency, i.e., to test to what extent adolescents prefer this or that  
84 coping strategy. The study also aimed to test whether coping-strategies preferences are associated with  
85 psychosocial well-being and functioning in adolescence.

86 Although the adolescence period might be strictly defined as encompassing the 13-18 years age span, studies on  
87 'adolescents' typically show much variability in the *age span* of participants so defined, and as regards what  
88 specific age groups are considered - e.g., 'adolescents' might be as young as 12 years [3], or 11 years [11]; studies  
89 might include or focus only on two age points during adolescence (e.g., 12 and 17 years [3]) or assess only the  
90 younger age brackets (e.g., 8 to 14 yrs [4]; 12 to 16 years [16]; 9 to 14 years [12]). To achieve its aims, this study  
91 considered the entire age span from 14 years to the end of the 21st year, i.e., assessing 'true adolescents' (13-18  
92 years) as well as the life period (19-21 years) that might be referred to as late adolescence, or very young or early  
93 adulthood.

94 As regards *coping*, to achieve the study aims, it was thought it advisable to measure preferences for a *variety* of  
95 coping strategies, and employ a measure that had been frequently used in the literature as well as validated for  
96 Italian participants. Coping strategies were thus assessed using the well-known questionnaire COPE [9], in its  
97 Italian version, named COPE-NVI, validated with a large samples of young adults [24]. The COPE measure, in its

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<sup>2</sup>Partial results of the study were presented at the 10th International Conference on Education and New Learning Technologies, 2-4 July, 2018, Palma (Spain). A draft version of this manuscript was published in the conference proceedings. Link: - <https://library.iated.org/view/ZAMMUNER2018COP>

98 original form, or in shorter, revised and partial versions, has been employed in many studies, with participants of  
99 various nationalities [12] [25] [26] [27], making it more feasible to compare results across studies.

100 The Italian COPE-NVI version assesses five main dimensions or types of strategies, each including two or more of  
101 the 15 coping strategies originally discussed by [9], as detailed in the following. *Seeking social support*, both for  
102 instrumental reasons (seeking advice, assistance, or information) and for emotional reasons (getting moral  
103 support), as in "I try to get advice from someone about what to do", and "I try to get emotional support from friends  
104 or relatives"; *Avoidance*, that includes denial (denying the presence of the stress), and behavioral and mental  
105 disengagement (i.e., reducing one's effort to deal with the stressor and distracting from thinking about the  
106 problem), as in "I say to myself 'This isn't real' ", "I try to loose myself for a while by drinking alcohol or taking  
107 drugs", and "I act as though it hasn't even happened"; *Problem-solving orientation*, that assesses active coping  
108 (i.e., taking steps to circumvent the stressor), planning (thinking about how to cope with the stressor), and  
109 suppression of competing activities (i.e., avoiding to be distracted by other things), as in "I put aside other activities  
110 in order to concentrate on this", and "I think hard about what steps to take"; *Positive attitude*, i.e., a positive  
111 reinterpretation of the event and its consequences, a dimension that includes positive reinterpretation and growth  
112 (i.e., construing a stressful event in positive terms), and restraint (i.e., waiting for an appropriate opportunity to  
113 occur), as in "I try to see it in a different light, to make it seem more positive" and "I hold off doing anything about it  
114 until the situation permits"; finally, *Transcending Orientation*, that includes turning to religion and humor, as in "I try  
115 to find comfort in my religion" and "I make fun of the situation". In this study, typical or dispositional ways of coping  
116 were assessed, i.e., adolescents were asked to report "what you generally do", "how you generally feel", though it  
117 was explicitly acknowledged in the instructions they might react somewhat differently in this or that specific context  
118 or situation. As discussed above, some or many of these strategy types were examined in previous studies on  
119 coping and/or emotion regulation, with samples that included participants in the pre-adolescent, adolescent and  
120 young adulthood age-span, namely from about 11-12 years of age to about 23 years of age.

121 On the assumption that well-being is the result of a variety of factors, each uniquely contributing to experienced  
122 well-being level in terms of psychological and social functioning, the study deemed it necessary to assess  
123 subjective perceptions on several variables that the literature indicates as being related to well-being. To obtain  
124 reliable measures of well-being, the study thus employed a broad, extensive set of valid psycho-social health  
125 indicators (see also the Methodology section). More specifically the study assessed the following well-being  
126 factors.

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128 *Felt affect*, i.e., subjective reports of felt positive and negative emotions, is perhaps the most crucial indicator of  
129 well-being, tested in almost any study of it, and in many studies of coping - e.g., [3] [13] [15] [18]. On the basis of  
130 reported findings in the literature, we might for instance expect that successfully coping with a stressor, such as  
131 asking for, and obtaining, social support, will induce positive affect, whereas a coping failure, such as simply  
132 avoiding the problem at hand, will intensify negative affect or at the very least not help reduce its intensity. The  
133 literature moreover shows that frequent or prolonged negative affect (e.g., anger, anxiety, sadness), as well as  
134 maladaptive emotion regulation and coping strategies (such as suppression of negative feelings, rather than  
135 attempts at modifying those feelings, for instance by re-appraising the eliciting event, or attempting to solve the  
136 problem) may lead to depression or other psychological and behavioural problems - e.g., [12] [14] [15] [16] [18]. As  
137 a very large literature on emotion experiences shows - e.g., [2] [13] [14] [15] - well-being is expected to be  
138 associated with a greater frequency of positive affect, and a lower frequency of negative affect.

139  
140 As social relationships are at the core of our life, i.e., we all need, and desire, to feel integrated in a net of  
141 subjectively meaningful relationships, *felt loneliness* is another very important indicator of well-being, as shown by  
142 many studies - [28] [29] [30] [31]. Loneliness has often been assessed as a cause (but also as the result) of  
143 psychological problems, such as depression [26] and addicted behaviors, including internet use and alcohol use [32]  
144 [33] [34]. Not surprisingly, the association of loneliness with coping strategies has been much studied, especially in  
145 relation to the strategy of seeking social and emotional support [28-33]. The extent to which an adolescent will feel  
146 lonely is likely to be related to the social support - from his/her family, or friends and peers - s/he has experienced  
147 when turning to others to obtain support. Indeed, a large longitudinal study [34] found that the probability of feeling  
148 social and emotional loneliness in young adulthood is lesser if, as adolescents, people had a supportive family- as  
149 assessed by items such as 'I can rely on my family when I need help or advice' - that offered the sought help or  
150 advice. Past experience, in turn, is likely to influence whether or how often the adolescent will seek social support  
151 as a coping strategy. In this study both social and emotional loneliness were assessed, as they represent important  
152 and conceptually distinct dimensions of loneliness, referring to the different personal needs that different kinds of  
153 relationships might satisfy: emotional loneliness is related to the absence of desired intimate interpersonal  
154 relationship (with family members, friends, or peers), whereas social loneliness is associated with the absence of a  
155 personally relevant social network to which one can turn for support or advice - e.g., [29] [35].

156 Well-being might furthermore be defined by how a person *perceives her psychological health*, that is, by what  
157 impressions she has about her psychological, social and physical functioning. Such perceptions might even be  
158 more important than actual health as objectively measured, as indicated especially by studies on old age people  
159 that show that an important predictor of depression, and even of mortality rates is, for instance, loneliness [29]  
160 [36] [37]. As depression - a mental health disorder - is an important predictor of a variety of behavioral, physical

161 and psychological problems (e.g., alcohol abuse, hypertension, poor sleep, and frequent negative affect), very  
162 many studies, as we discussed also earlier on, have been conducted to develop models, and related measures,  
163 that try and assess depression, and its correlates, in specific segments of the population, such as the adolescent  
164 [28] [3] [11] and the old aged [37] [38], as well the general population [39]. A measure that has been used in very  
165 many studies as a diagnostic criterion of current mental wellbeing (and therefore useful to assess likelihood of  
166 depressive symptoms) is the General Health Questionnaire (GHQ) [40], a 60-item test, focusing on breaks in  
167 normal functioning, extensively validated with adults in very many countries – e.g., [39]. Since its development,  
168 shorter, abridged forms have been developed, including the 12-item GHQ, a measure that has been used and  
169 validated both with adults and adolescents [39] [41] [42]. The 12-item GHQ was thus selected in the present study  
170 to assess current psychological health.

171  
172 Finally, an important indicator of subjective well-being might be how people evaluate their lives, from an emotional  
173 and cognitive viewpoint, i.e., how happy and fulfilled they feel with it. Such judgement might focus on a short- or  
174 long-time period, and focus on a specific life domain, such as one's social network, one's work or school, one's  
175 financial situation, or may concern one's life as a whole. Much research has been carried out to assess subjective  
176 well-being, not only in terms of socio-demographic characteristics that correlate with it, but, following a greater  
177 recognition of the role played by people's goals, coping efforts, and dispositions, especially in the attempt to  
178 understand what processes underlie it [43]. Emotional responses – e.g., positive versus negative affect - typically  
179 constitute a component of subjective well-being, as much as cognitive evaluations [44]. In this study subjective  
180 well-being was measured by asking participants for a global judgement of the extent to which they are happy with  
181 their life, using the well known Life satisfaction scale [45], consisting of five items, a scale used with adolescents too  
182 – e.g., [46] [47]. The items express global rather than specific subjective evaluations, allowing us to obtain a global  
183 judgement of life quality focusing on the cognitive component of subjective well-being.

### 184 1.1.1 Hypotheses

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186 The main hypotheses of the study, based on the reviewed literature, were the following.

187  
188 1. Coping preferences would be generally reflected in well-being levels. However, the association between well-  
189 being and coping strategies was expected to vary according to which *specific* strategy and which specific well-  
190 being aspect was considered. To exemplify, seeking social-support (and obtaining it) might be associated with  
191 greater positive affect, with lesser emotional and/or social loneliness, but not necessarily with a lesser frequency of  
192 negative affect nor with greater life satisfaction. Avoidance might imply feeling better, i.e., temporarily restoring  
193 positive affect, though it may not lessen intensity of negative affect. Being able to have a positive attitude, i.e., to  
194 reappraise the event, might be related to greater positive affect, and perhaps to greater life satisfaction.  
195 This complex-association hypothesis is in line with the results and interpretations offered especially in recent  
196 literature reviews [10] [15] that show that different strategies have a different weight, and role, in explaining this or  
197 that psychological problem or disorder. For instance, avoidance is significantly positively related to anxiety and  
198 depression, but not to substance use; re-appraisal typically has significant but small-size negative associations with  
199 anxiety and depression [15]. Moreover, a complex association of coping with well-being was expected because (a)  
200 strategies might differ in the extent to which they are perceived as adaptive, functional to cope with a specific  
201 situation given adolescents' goals either in general or in that specific context; for instance, turning to humor might  
202 better fit an adolescent's goals if s/he is concerned with her public image in that context, or in general; (b) in  
203 relation to a given stressor, adolescents might cope using more than one strategy, such as a problem-solving  
204 orientation coupled with humor or seeking social support.

205  
206 2. Coping preferences would change with age, from early adolescence to late adolescence and young adulthood,  
207 becoming better suited to deal with challenges and problems. As mentioned earlier, we might expect that growing  
208 up implies being able to rely upon a greater variety of personal stress-and-coping experiences, including indirect  
209 ones such as those the adolescent might observe in peers and in adults, or even in movies, leading to a repertoire  
210 of strategies that are possibly well mastered - i.e., the adolescent knows by experience what strategy to use in a  
211 given situation to obtain a desired goal. However, it has to be acknowledged that personal characteristics, such as  
212 personality, predominant goals, or types of personal experiences related to his/her history [11] [26] [48] [49], might  
213 confound age-related findings.

214  
215 3. Gender differences were expected, with girls and young women preferring more than boys and young men  
216 strategies that build on interpersonal relationships, such as seeking social support, and boys and young men  
217 preferring more than girls and young women strategies that build on power and agency, such as a problem-solving  
218 orientation [4] [50]. Furthermore, if females focus more on the event, from a cognitive and emotional viewpoint, than  
219 males do, for instance by engaging more frequently in rumination, but also in re-appraisal, whereas males might  
220 suppress their emotional reactions to the event and react by means of 'distancing' themselves from it more than  
221 females do - as findings in the literature suggest [4] [25] [50] - we might expect gender differences to occur in the  
222 coping strategies of Avoidance, Transcendent orientation and Positive attitude too. Gender differences might be  
223 found to the extent that stereotypical gender norms and roles have been learned through socialization processes  
224 and have been internalized by the adolescent (the extent to which such gender stereotypes characterized the  
225 sample was not however directly assessed in this study).

227 **2. METHODOLOGY**

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229 **2.1 Participants and Procedure**

230 Participants were 1060 (61,4 females) Italian students of senior high-school (attending various school types, mostly  
231 68.6% lyceums) and university (18 to 21 year-old) who answered a survey (that included other measures not  
232 considered in this study; e.g., [23]). The survey was in a pen-and-pencil format for the earlier-collected data (2010)  
233 with some of the adolescent groups, i.e., those who answered it in their school classrooms, and was in an online  
234 format for all university students and for the adolescent groups who were tested in a successive collection period  
235 (2011). The survey, in either format, was completed on average in about forty minutes. All participants were  
236 assured of the confidentiality of their answers. Participants were recruited through schools, thanks to school  
237 masters' and parents' agreement, and at university classes, as well as via a University of Padova site that included  
238 an online description of, and advertisement for, the mentioned research project on emotional competences, and an  
239 invitation to participate with instructions on how to do so. High-school participants were briefly presented the study  
240 during school time, in their classroom setting, and completed the survey, on a voluntary basis, either in their  
241 classroom at school (the pen-and-pencil version), or using school computers in their free time from school  
242 activities. All the participants who had completed the online survey were returned a short individual online report  
243 about how their results in various measures compared with the overall peer-sample means.

244  
245 As regards more specific sample characteristics, of the 1060 participants, 64,2% were attending a senior high  
246 school, 30,6% attended the university; for 7,5% this info was missing. The age of senior high school students  
247 ranged from 14 to 21 years, with 14 yr.-old attending mostly grade 1 (68,9% of class 1 students), 15 yr.-old  
248 attending mostly grade 2 (62,0% of class 2 students), 16 yr.-old attending mostly grade 3 (72,9%), 17 and 18 yr.-  
249 old attending mostly grade 4 (respectively 59,3% and 29,3%) and finally grade 5 being attended by mostly 18 and  
250 19 yr.-old (respectively 63% and 27,2%). The large age range (i.e., 18 to 21 years) that characterized the oldest  
251 students in the high-school sample motivated the inclusion in the study sample of young university students too  
252 (who had participated in the above-mentioned larger research project - e.g. [23]) provided their age was 21 years  
253 and 11 months at most - all participants had to report their age in years and months. The inclusion of young  
254 university students in the sample allowed to more adequately measure age-related coping preferences and well-  
255 being also in late adolescence and young adulthood.

256 **Table 1 . Frequency of Males and Females in 5 age groups, defined by years and months.**

Age group		% M	% F	N Total	% Total
in years and months					
	Years, months				
1	14,0-15,6	11,5	15,1	145	13,7
2	15,7 -17,0	13,0	14,7	149	14,1
3	17,1-18,6	32,5	20,4	266	25,1
4	18,7 - 20,0	21,0	20,0	216	20,4
5	20,1 - 22,0	22,0	29,8	284	26,8
Total		409	651	1060	100

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258 To better analyze age-related differences in relation to sufficiently large samples for each age group, after a careful  
259 inspection of reported age in years and months, participants were classified into *five age groups* (see Table 1) on  
260 the basis of a re-coding of their reported age as follows: Early adolescence: 14 to 15,6 years (N=145; 11,5% of all  
261 males); two Middle adolescence groups: 15,7 to 17 years, and 17,1 to 18,6; Late adolescence: 18,7 to 20 years;  
262 Young adulthood: 20,1 to 22,0 years (i.e., including participants who at most were at the end of their 21<sup>st</sup> year).

263  
264 **2.2 Measures**

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266 To assess coping strategies on the one hand, and well-being on the other hand, the following measures were  
267 employed, all reliable ones, used in several studies in the literature, as mentioned above, including many studies  
268 with Italian young adults [20-23] [29] [51]. The reliability values obtained in this study for each employed measure  
269 are reported in Table 2. Other reliability and validity data obtained in previous studies, as well as details on aspects  
270 such as the factorial structure of each measure, are given in the references supplied for each measure below, and  
271 in those quoted in the previous Aims section that briefly discussed the rationale for selecting each measure.  
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## 2.2.1 Coping

Coping strategies were assessed with COPE (Coping Orientation to the Problems Experienced[9], using the Italian Version COPE-NIV [24]that represents an improvement of a previous Italian version). COPE-NIV is composed of 60 self-report items –to be answered using a 4-point scale ranging from 1, "I don't usually do it", to 4, "I do it almost always" - subdivided into five subscales that measure distinct, clearly focused aspects of coping: Seeking social support, Avoidance, Problem-orientation (i.e. problem-solving), Positive-attitude, and Transcending Orientation (i.e.,Turning to religion and humor).

## 2.2.2 Psycho-social Well-being

Well-being is a complex construct, and as such it may be operationalized in a variety of ways that focus on different aspects of it, from presence or absence of psychological symptoms (such as distress or depression), to nature of experienced emotions (e.g., frequency of positive *versus* negative moods), to feelings of social integration, to subjective assessments of the quality of one's own life. The study assessed well-being with reference to four main aspects of well-being, measured by four self-report scales that included six subscales in total, i.e., six distinct psychological constructs. Participants' scores were averaged over each subscale - see [23].

*Affect*, that is, the nature and quality of emotion experiences, was investigated with the Positive and Negative Affect scale - PNA[44] [51] - a bi-dimensional measure, i.e.,it assesses positive and negative affect as distinct dimensions. Participants reported the frequency with which, *in the last 15 days*, they felt each of 14 positive and negative emotions, such as joy, pride, sadness, anger. Response options were on a 6-point scale, from "never" to "very often".

*Loneliness* was measured with an 11-item scale [52] [29] assessing perception of two dimensions of loneliness, i.e., *Emotional* and *Social loneliness*, as in "I experience a general sense of emptiness", and "And I can call on my friends whenever I need them", answered on a 6-point scale, from "false of myself" to "true of myself". Given that the 5 items assessing Social loneliness are phrased positively, as in the quoted example and in "There are enough people that I feel close to", *scores actually indicate perception of social support*, i.e., lack of social loneliness. Both scale dimensions correlate well with another, much used measure of 'general' loneliness, i.e., the UCLA [29].

**Table 2. Alpha scores and Mean ratings on Coping and Well-being measures**

	N	Standardized Cronbach Alpha	Maximum score	Mean	sd
C-Avoidance	950	,866	4,00	1,61	0,43
C-Social support	951	,894	4,00	2,63	0,64
C-Positive Attitude	949	,777	5,17	2,51	0,49
C-Problem Orientation	949	,863	4,00	2,60	0,55
C-Transcendent Orientation	948	,793	3,75	1,70	0,57
GHQ_Psychological Health	1010	,859	5,00	3,08	0,95
Life satisfaction	1038	,847	5,00	2,67	1,08
A-Positive emotions	1058	,765	5,00	3,25	0,96
A-Negative emotions	1058	,768	5,00	2,26	0,87
L-Social support	1039	,898	5,00	3,55	1,22
L-Emotional	1039	,841	5,00	1,53	1,15\

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Legend.

Subscales: C: Coping; A: Affect; L: Loneliness.

310 *Psychological health* was measured by the *General health questionnaire* (GHQ) using the 12-item version GHQ-  
311 12, that evaluated participants' subjective perception of their health. The scale [40][42][51][53]assesses  
312 participants' inability to carry out normal daily activities, to cope with everyday problems, and measures general  
313 dysphoria, anxiety and depression. It does so by asking whether the person has experienced certain symptoms or  
314 behaviors recently – as in “Have you been feeling reasonably happy?” or “Have you felt you could not overcome  
315 your difficulties?”. In this study responses were given on a 6-point scale, “from not at all” to “much”, and  
316 participants were asked to think how they felt *in the last 15 days*. To make the reading of results more immediate,  
317 i.e., congruent with the term 'health', in this study item responses were reversed *when the item expressed a*  
318 *negative state*- as in 'I continually felt under pressure' (rather than reversing the items expressing a positive state,  
319 as is typically done - e.g., [42]). Therefore, in the results here reported obtained mean *low* scores in the scale  
320 indicate low health and high scores denote good health.

322 *Life satisfaction* was assessed using the very well-known 5-item Life Satisfaction scale - LSS [45][46][47][51]with  
323 6-point options ranging from “false of myself” to “true of myself”. Items include “My life conditions are excellent”  
324 and “In most ways my life is close to my ideal”.

## 326 2.3 Statistical Analyses

327  
328 Descriptive and reliability analyses were performed for all subscales for the total sample, and for gender and age  
329 sub-samples. Gender and age differences in using coping strategies were tested by means of MANOVAs and  
330 ANOVAs. Zero-order and partial correlations, controlling for either gender or age, explored the relationships  
331 between coping and well-being variables - positive and negative felt affect, life satisfaction, emotional and social  
332 loneliness, and psychological health. Expected relationships among the tested variables were finally assessed in  
333 linear regression analyses, with each well-being outcome as a dependent variable in turn, controlling for gender  
334 and age effects, with gender and age categories entered in the first step of the regression, and coping strategies  
335 added in the second step.

## 337 3. RESULTS AND DISCUSSION

338  
339  
340 The following sections report the main results<sup>3</sup> that were obtained in the various analysis types that were  
341 performed on participants' ratings of the mentioned variables.

### 343 3.1 Adolescents' and young adults' coping and well-being: An overall view.

344  
345 Mean ratings obtained by the sample are reported in Table 2, together with Cronbachalpha values for each  
346 measure. The results showed that the employed measures are valid ones, i.e., obtained Alpha values were in the  
347 range of .77-.90. Participants' ratings on the tested measures indicated that the sample is overall a healthy one, in  
348 terms both of coping preferences and well-being indicators. The results in fact showed that adolescentsreported  
349 using the healthier strategies of seeking Social support, adopting a Problem Orientation and employing a Positive  
350 attitude more often than the less functional strategies of Avoidance andturningto aTranscending Orientation, i.e., to  
351 religion or humor. As regards well-being, participants similarly reported a relatively high level of perceiving that  
352 social supportis available to them (i.e., not suffering from social loneliness),relatively frequent positive emotions  
353 (e.g., joy, pride, affection), and a sufficient to medium level of psychological health - as measured by the GHQ-12.  
354 Coherently with the just reported wellbeing-indicators results, negative emotion feelings (e.g., sadness, anger,  
355 shame, stress), as well asemotional loneliness, were reported somewhat infrequently.

356  
357 Table 3 reports the degree of association (Pearson's *r*) of the coping strategies with each other (5 top rows), and  
358 the association of coping with the well-being indicators (6 bottom rows).The correlation values between the five  
359 coping show that coping strategies are all significantly and positively associated with each other, but the strongest  
360 associations are between Avoidance and Transcending Orientation on the one hand, a result that seems to confirm  
361 that turning to religion and humor is not likely to be a form of adaptive coping, and between Problem Orientation  
362 and both Positive attitude and Social support on the other hand. These results seem to indicate that coping  
363 patterns form coherent patterns.

364  
365 As regards to what extent coping is associated with well-being, the obtained association values reported in Table 3  
366 overall indicated that coping strategies are reflected in well-being indicators, as hypothesized. The strongest  
367 observed relationships were the following. Avoidance was negatively associated with GHQ-Psychological Health,  
368 and was positively related with Negative emotions and Emotional Loneliness, confirming that it is a form of  
369 maladaptive coping, as suggested by most earlier-quoted studies. Problem Orientation, instead, was positively  
370 associated with all positive indicators of well-being,whereas it was not associated at all with the negative indicators,  
371 i.e., Negative emotions and Emotional Loneliness, a result that seems to underlie that hedonically positive and

---

<sup>3</sup> The probability level *P* of results is reported using superscripts, as follows: *P*.<sup>a</sup> = 0,001, <sup>b</sup> =0,01, <sup>c</sup> =0,05.

372 negative feelings are quite distinct dimensions that might be unrelated to each other, do not exclude each other. A  
 373 similar pattern of associations characterized seeking Social support, significantly associated with all wellbeing  
 374 indicators, but especially with the *absence of feelings of social loneliness*, i.e., the subjective perception of not  
 375 suffering from loneliness from a social viewpoint, the L-Social support indicator. Finally, both the Transcendent  
 376 Orientation and the Positive Attitude strategies were significantly and positively related to the positive indicators of  
 377 wellbeing, but had low association values. The hypothesis that association between preference for coping  
 378 strategies and well-being indicators tends to vary according to which coping strategy we consider and which well-  
 379 being indicator was thus overall supported.

380  
 381 **3.2 Coping and well-being as a function of age and sex.**  
 382

383 To test whether coping and wellbeing differed in males and females at different ages, that is, whether there were  
 384 differences associated with age and sex groups, two MANOVAs were performed respectively on Coping and on  
 385 Wellbeing, with Age (5 age groups) and Sex as between-subject variables, and respectively Coping (5 strategies),  
 386 and Well-being (6 measures) as within-subject factors. The obtained results were later further analyzed in two sets  
 387 of ANOVAs.  
 388

389 **Table 3. Correlations of Coping and Well-being measures (controlling for age)**  
 390

	1. C	2. C	3. C	4. C	5. C
1. C-Avoidance	1	,503 <sup>a</sup>	,292 <sup>a</sup>	,115 <sup>a</sup>	,203 <sup>a</sup>
2. C-Transcendent Orient.	,503 <sup>a</sup>	1	,296 <sup>a</sup>	,212 <sup>a</sup>	,206 <sup>a</sup>
3. C-Positive Attitude	,292 <sup>a</sup>	,296 <sup>a</sup>	1	,613 <sup>a</sup>	,352 <sup>a</sup>
4. C-Problem Orient.	,115 <sup>a</sup>	,212 <sup>a</sup>	,613 <sup>a</sup>	1	,402 <sup>a</sup>
5. C-Social support	,203 <sup>a</sup>	,206 <sup>a</sup>	,352 <sup>a</sup>	,402 <sup>a</sup>	1
6. GHQ-Psychol. Health	-,189 <sup>a</sup>	,034	,084 <sup>a</sup>	,142 <sup>a</sup>	-,041
7. Life satisfaction	-,076 <sup>b</sup>	,108 <sup>a</sup>	,154 <sup>a</sup>	,215 <sup>a</sup>	,141 <sup>a</sup>
8. L-Social support	-,029	,100 <sup>a</sup>	,171 <sup>a</sup>	,171 <sup>a</sup>	,369 <sup>a</sup>
9. A-Positive emotions	-,040	,112 <sup>a</sup>	,123 <sup>a</sup>	,172 <sup>a</sup>	,149 <sup>a</sup>
10. A-Negative emotions	,131 <sup>a</sup>	-,008	-,039	-,015	,113 <sup>a</sup>
11. L-Emotional	,168 <sup>a</sup>	-,007	-,002	-,024	-,085 <sup>a</sup>

391 Legend.

392 P:<sup>a</sup> = 0,01, <sup>b</sup> =0,05.

393 Due to missing values, N varied across measures: COPING N= 948 to 950; WELLBEING N= 1009 to 1058.

394  
 395 **3.2.1 Coping**  
 396

397 The MANOVA results showed a significant multivariate effect for Coping (F 703,82<sup>a</sup>, df 4, 935), as well as for the  
 398 interactions Coping by Age (F 3,34<sup>a</sup>, df 16, 3752), Coping by Sex (F 4,23<sup>a</sup>, df 4, 935), and Coping by Age by Sex (F  
 399 4,24<sup>a</sup>, df 4, 935). No between-subject main effects were significant. The strong multivariate effect of Coping is of

400 course related to the mean ratings obtained for each coping strategy (see Table 2), that showed, as previously  
401 reported, that Avoidance and Transcendent Orientation were used by the sample significantly less frequently than  
402 the other three coping strategies.

403  
404 In the results obtained in a series of ANOVAs on coping strategies, with Age (5 age groups) as between-subject  
405 variable, and Sex as a covariate, a few group differences emerged. Specifically, Age was significant for three out of  
406 five coping strategies, namely, Avoidance (F 3,21<sup>b</sup>, df 4, 942), Problem Orientation (F 4,41<sup>c</sup>, df 4, 942), and  
407 Transcendent Orientation (F 5,15<sup>a</sup>, df 1, 942). Inspection of mean ratings in relation to Age showed that: males'  
408 greater use of Avoidance (the significant interaction Coping by Age by Sex) occurred especially from 17 years  
409 onward; preference for Problem Orientation was lowest at 17-18,6 years of age, and highest in the oldest age  
410 group, i.e., the young adults; preference for Transcendent Orientation was instead highest in the youngest age  
411 group, and lowest in the young adults. Overall the results support the hypothesis that coping preferences tend to  
412 change as the adolescent grows.

413  
414 As regards sex differences in coping, ANOVA results showed that Sex was significant for Avoidance (F 11,44<sup>a</sup>, df 1,  
415 942), higher in males than females, and for seeking Social support (F 7,85<sup>b</sup>, df 1, 942), higher in females. Thus the  
416 results overall confirmed the hypothesis that males and females might differ in their coping preferences.

### 417 418 3.2.2 Well-being

419  
420 The MANOVA results on Well-being (6 measures) as a multivariate within-subject factor, and Age (5 age groups)  
421 and Sex as between-subject variables, showed a significant multivariate effect for Well-being (F 236,05<sup>a</sup>, df 5, 994),  
422 as well as for the Well-being by Age multivariate interaction (F 2,61<sup>a</sup>, df 20, 3988). Sex obtained a marginally  
423 significant effect only (F 2,99,  $P = .08$ , df 1, 998), with males overall reporting higher well-being ratings than  
424 females. Finally, a significant between-subject effect was obtained for the Age by Sex interaction (F 3,07<sup>b</sup>, df 4,  
425 998). As it was the case for Coping results, the significant large multivariate effect for well-being was due to, and  
426 already evident in, the mean ratings obtained for each well-being indicator (Table 2): as we saw earlier, Negative  
427 emotions and Emotional loneliness, two indicators of *ill-being*, were in fact reported by the sample significantly less  
428 frequently than all remaining and positive well-being measures. Inspection of mean ratings in relation to the Age by  
429 Sex interaction showed that sex differences were significantly larger only in the 15,6-17,0 age bracket in  
430 comparison to all other age groups, with boys reporting higher scores than girls. In other words, the marginally  
431 significant multivariate Sex effect, with males characterized by higher well-being ratings than females, was actually  
432 due to this specific age group.

433  
434 The results obtained in the performed ANOVAs, with Age (5 age groups) as between-subject variable, and Sex as  
435 a covariate, showed a few significant age differences in well-being. Specifically, Age was significant for the  
436 following indicators: GHQ-Psychological health (F 9,20<sup>a</sup>, df 4, 1002), lowest in the three 'middle' age groups, i.e.,  
437 from 15,7 to 20 years; similarly to GHQ-Psychological health, Life satisfaction (F 3,29<sup>c</sup>, df 4, 1002) was highest in  
438 the two extreme age groups, i.e., at 14-15,06 and 20-21 years; finally, L-Social support (F 3,11<sup>b</sup>, df 4, 1002)  
439 increased from 14 years to 18,06, then dropped somewhat at 18,7-20, to increase again in the oldest group.

### 440 441 3.2.3 Do coping preferences predict well-being?

442  
443 As earlier stated, relationships among the tested variables were assessed in linear regression analyses, with each  
444 well-being outcome as a dependent variable in turn, controlling for gender and age effects, entering gender and  
445 age categories in the first step of the regression, and adding coping strategies in the second step. The main results  
446 - Standardized Beta coefficients, and explained variance ( $R^2$ ) - of the final linear regression models (all significant  
447 at  $P = .000$ ) of coping strategies in relation to well-being variables are reported in Table 4.

448  
449 The results showed that Sex and Age are quite irrelevant in well-being prediction - the exception being a weak role  
450 of sex in explaining Life satisfaction. As regards the coping strategies, the results indicated that Avoidance,  
451 Transcendent Orientation, seeking Social support, and Problem Orientation were, in decreasing order of  
452 importance considering their Beta weights in relation to each well-being indicator, quite crucial in predicting well-  
453 being. Somewhat surprisingly, Problem Orientation was *not* one of the strategies most strongly predictive of well-  
454 being. The Positive attitude strategy was generally irrelevant, with the exception of its small role (in term of its Beta  
455 weight) in protecting from feeling Negative emotions, and in not feeling Socially alone.

456  
457 Perhaps of greater importance, the results showed that preferences for this or that specific coping strategies  
458 explained this or that well-being indicator more than it explained other well-being aspects, as it was hypothesized,  
459 and conversely showed that each well-being aspect is explained to a greater or lesser extent by preferences for  
460 coping strategies. Notably, the results showed a very important role of coping strategies in the perception of Social  
461 loneliness (16% variance explained), especially in terms of employing the active seeking-Social-support strategy, in  
462 the perception of one's own Psychological Health (9% variance explained), with Avoidance as the most important  
463 (negative) predictor, and Problem orientation and Transcendent Orientation as positive less important predictors,  
464 and, finally, Life satisfaction (9% variance explained), again predicted first of all (negatively) by avoidance, and by  
465 Problem orientation and Transcendent Orientation. Preferences for coping strategies, though significant predictors,

466 do not overall contribute much to explaining Positive affect, Negative affect and Emotional loneliness (about 5%  
 467 variance explained) - although specific coping strategies are important predictors of these well-being aspects.  
 468

#### 469 4. CONCLUSION

470  
 471 The reported study aimed to assess adolescents' usage and preference for various coping strategies, and to obtain  
 472 a better understanding of whether coping preferences are associated with psychosocial well-being, as measured  
 473 by a broad, extensive set of psychosocial health indicators. The results that were reported in the previous sections  
 474 on the whole supported the study hypotheses.  
 475

476 **Table 4. Final linear regression models of Coping strategies. Standardized Beta coefficients, and explained**  
 477 **variance (R<sup>2</sup>) in relation to well-being variables**  
 478

	GHQ Psych. Health	Positive Affect	Life Satisfact.	L-Social Support	L-Emot. Lonelin.	Negative Affect
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Sex <sup>a</sup>	-.02	.03	-.07 <sup>c</sup>	-.05	.04	.02
Age <sup>b</sup>	.03	.01	-.02	-.03	.03	.05
C-Avoidance	-.28 <sup>a</sup>	-.15 <sup>a</sup>	-.21 <sup>a</sup>	-.18 <sup>a</sup>	.26 <sup>a</sup>	.19 <sup>a</sup>
C-Social support	-.09 <sup>b</sup>	.10 <sup>b</sup>	.08 <sup>c</sup>	.37 <sup>a</sup>	-.12 <sup>b</sup>	.13 <sup>a</sup>
C-Positive Attitude	.07	.03	.05	.08 <sup>c</sup>	-.02	-.11 <sup>b</sup>
C-ProblemOrientation	.14 <sup>a</sup>	.10 <sup>c</sup>	.14 <sup>a</sup>	-.03	.03	-.00
C-Transcendent Orient.	.14 <sup>a</sup>	.14 <sup>a</sup>	.14 <sup>a</sup>	.09 <sup>b</sup>	-.11 <sup>b</sup>	-.09 <sup>b</sup>
R <sup>2</sup>	.091	.059	.085	.162	.056	.046

#### 479 Legend

480 *P*: <sup>a</sup> = 0,001, <sup>b</sup> = 0,01, <sup>c</sup> = 0,05 .

481 <sup>a</sup> Gender categories were: (1) male; (2) female; <sup>b</sup> Age categories were 5, from (1) 14-15,6 years to (5) 20-22 years  
 482 (see Table 1).

483 To briefly summarize the study results, the sample of adolescents overall was characterized by adaptive, functional  
 484 coping preferences (as measured by the frequency with which a given strategy is employed) more than by  
 485 dysfunctional ones. That is, adolescents on average reported using the healthier strategies of seeking Social  
 486 support, adopting a Problem Orientation and employing a Positive attitude more often than the strategies of  
 487 Avoidance and turning to a Transcending Orientation, i.e., to religion or humor (Table 2). As regards well-being,  
 488 adolescents reported infrequently suffering from social loneliness, and reported relatively frequent positive  
 489 emotions and a medium level of psychological health. Coherently with these wellbeing-indicators results, they  
 490 reported somewhat infrequent feelings of negative emotions (e.g., sadness, anger) and emotional loneliness (Table  
 491 2). Thus, the tested adolescent and young-adult sample is overall a healthy one, in terms both of coping  
 492 preferences and well-being indicators.  
 493

494 An important study hypothesis was that *coping preferences change with time*. That is, it was expected that  
 495 preferences would become better suited, from early adolescence to late adolescence and young adulthood, to deal  
 496 with challenges and problems the person faces - e.g., Avoidance was expected to decrease with age, Problem  
 497 Orientation to increase. The age factor was indeed significant for three out of five coping strategies, namely,  
 498 Avoidance, Problem Orientation and Transcendent Orientation. However, the picture that emerged as regards age  
 499 differences in coping preferences is complex: age-related preference trends were typically not-linear ones, and  
 500 varied according to which specific strategy was considered. The results in fact showed that Avoidance

501 (characterizing males more than females) actually increased from 17 years of age, and at older ages; preference  
502 for Problem Orientation was lowest in the middle-adolescence group (17-18,6 years of age), whereas its peak was  
503 highest in the oldest age group, i.e., the young adults; the preference for Transcendent Orientation was *vice*  
504 *versa* highest in the youngest age group (14-15,6 years), and lowest in the young adults. In sum, the results overall  
505 support the hypothesis that coping preferences *do change* as adolescents grow. However, observed changes did  
506 not follow, as expected, a *linear* trend as a function of an increase in age, with older participants preferring functional,  
507 adaptive coping strategies and abandoning the dysfunctional ones - as indicated by the co-occurrent preference in  
508 late adolescence and young adulthood for Problem Orientation on the one hand, a functional strategy, and  
509 Avoidance (sometimes coupled with Transcendent Orientation) on the other hand - both dysfunctional  
510 reactions. The results also indicate that older adolescents and young adults, who have at their disposal a good  
511 repertoire of coping strategies, still face much uncertainty in how to best cope.

513 The obtained results seem also to suggest that age-related changes in coping might be best understood  
514 considering on the one hand the *specific context* (situation, problem) an adolescent faces and has to respond to,  
515 and on the other hand the *repertoire of coping strategies* he/she can rely on at a given moment in his/her  
516 developmental history - thus including his/her experience with (and thus knowledge of) the outcome(s) that the  
517 usage of a given strategy had in the past. To illustrate, an adolescent faced with problem *P* might use strategy A at  
518 time *t*<sub>1</sub> in his/her development, because that is a well-mastered strategy, but maybe use strategy B at time  
519 *t*<sub>2</sub> because meanwhile his/her mastery of alternative coping experiences has grown. Or, the adolescent might use  
520 *both* strategies A and B faced with problem *P* at time *t*<sub>1</sub>, provided he/she already masters such strategies and  
521 his/her experience with them is positive. In other words the results, suggest, I believe, that to really understand  
522 coping preferences in relation to development we need to rely on more complex hypotheses, i.e., on hypotheses  
523 that take into account both the *context* of strategy-use, and the *personal developmental history*, using appropriate  
524 methods. Indeed, a limit of this study (and of many similar ones in the literature) is that strategy use is assessed in  
525 a vacuum, rather than in real contexts, or, to the very least, in relation to specified contexts - as happens with  
526 studies that use a scenario method, such as [50]- and relying on self-reports. In sum, future studies are likely to  
527 better assess and understand age trends if strategy knowledge and use are measured in more ecologically valid  
528 manners.

529  
530 As regards *well-being*, the results showed that, as mentioned above, the tested sample overall reported feeling well,  
531 as assessed by various indicators - affect, loneliness, psychological health, life satisfaction, with Negative affect  
532 and Emotional loneliness, two indicators of *ill-being*, were reported significantly less frequently than the positive  
533 well-being measures (Table 2). The analyses of variance results showed a few significant age differences in well-  
534 being. Specifically, Psychological health (the GHQ-12 indicator) and Life satisfaction were lowest in the three  
535 'middle' age-groups, i.e., from 15,7 to 20 years, whereas L-Social support increased from the youngest age (14 to  
536 15,6 years) to late middle adolescence (up to 18,06 years), to decrease somewhat at 18,7-20 years, and to  
537 increase again in the oldest group. The analyses of variance results also showed that males overall reported higher  
538 well-being ratings than females, but the sex difference was significantly larger only in the 15,6-17,0 age bracket in  
539 comparison to all other age groups, i.e., it was actually due to this specific age group. In sum, well-being levels  
540 significantly varied according to age for three of the six well-being indicators, whereas sex in general did not really  
541 differentiate the reported well-being.

542 These results overall seem to indicate that the middle-adolescence period is the most problematic one in terms of  
543 how adolescents feel.

544  
545 As regards the *relationship between well-being and coping preferences*, the correlational data, as well as the  
546 regression analyses results (Tables 3 and 4), showed that coping preferences are, overall, related to the well-being  
547 levels adolescents experience, thus supporting the main hypothesis that coping preferences are reflected in young  
548 people's well-being.

549  
550 The correlational results about the extent to which coping strategies are associated with well-being indicators on  
551 the whole confirmed the nature - adaptive vs. maladaptive - of the measured coping strategies, as detailed in the  
552 following. Avoidance, negatively associated with Psychological Health, and positively related with Negative affect  
553 and Emotional Loneliness, is clearly a form of maladaptive coping, as suggested by most earlier-quoted studies  
554 too. Problem Orientation, as well as seeking Social support, instead, are adaptive, functional strategies, as  
555 confirmed by their observed positive associations with all positive well-being indicators. Finally, both Transcendent  
556 Orientation and Positive Attitude were found to be adaptive strategies since they were positively related to positive  
557 indicators of well-being, although with low association values.

558  
559 The regression analyses results, mostly confirming correlational data, indicated that Avoidance, Transcendent  
560 Orientation, seeking Social support, and Problem Orientation, in decreasing order of importance considering their  
561 Beta weights in relation to each well-being indicator, were quite crucial in predicting well-being. The Positive  
562 attitude strategy was generally irrelevant, with the exception of its small role (in terms of its Beta weight) in  
563 protecting from feeling Negative emotions, and in not feeling Socially alone.

564  
565 More specifically, the regression analyses results showed that coping preferences are *differentially* associated with  
566 well-being. That is, each specific coping strategy is significantly associated especially with a specific aspect of well-

567 being, and/or its predictor weight varies across well-being aspects. Regression results showed in fact that  
568 Avoidance, as a negative predictor, and seeking Social support and Problem Orientation as positive predictors,  
569 significantly associated with, and predicted, most or all well-being indicators - somewhat surprisingly, Problem  
570 Orientation was however *not* one of the strategies most strongly predictive of well-being. *Vice versa*, the  
571 Transcendent Orientation, and more so the Positive Attitude, were strategies that, as mentioned, seemed generally  
572 of lesser importance, or had an important role for a specific well-being aspect only - Transcendent Orientation was  
573 relevant for all well-being predictors but with a lesser weight than other coping strategies had; Positive attitude had  
574 its strongest role in 'protecting' adolescents from feeling Negative emotions. The results overall thus showed that  
575 preferences for coping strategies do influence various well-being aspects, such as their very important role in  
576 participants' perception of Social loneliness, Social support and Psychological health, but also showed that coping  
577 preferences are important in explaining some well-being indicators more than others - witness the strong influence  
578 of the active seeking-Social-support strategy in the perception of one's own Social support, or the strong  
579 association of Avoidance with the perception of one's own Psychological Health, Life satisfaction, and Emotional  
580 loneliness. The main study hypothesis, i.e., that the association between preference for coping strategies and well-  
581 being indicators tends to vary according to which coping strategy and which well-being indicator we consider, was  
582 thus overall supported.

583  
584 It should finally be recalled that sex and age per se were found to be irrelevant predictors of well-being. Results  
585 showed in fact only a weak role of sex in explaining the Life satisfaction well-being indicator, with males showing a  
586 somewhat greater propensity to convey a 'happy and healthy' self-image than females, in line with prescribed,  
587 gendered norms on 'how to be' if you are a male. The earlier reported sex differences on coping preferences can  
588 be interpreted as referring to gendered ways on how to deal with problems, so that girls and women focus more  
589 than boys and men on strategies that build on interpersonal relationships, whereas boys and men, if the event  
590 questions their capacity for power and agency, as is typically the case when a stressor is met, tend more than girls  
591 and women to 'leave the field'. Note however that the sexes did not differ in their preferences for the strategies of  
592 Problem orientation, Positive attitude, and Transcending Orientation. In other words, we might say that males and  
593 females do not differ much in their coping preferences (and therefore do not differ much in their well-being), but, *if*  
594 *they do differ*, they do so according to gendered (stereotypical) norms on how boys and girls, men and women,  
595 ought to face life adverse events. An obvious limit of this study is that it did not explicitly assess the extent to which  
596 participants had internalized stereotypical gender roles, thus the extent to which they endorse stereotypical gender  
597 norms on how to cope with stressors, how to react emotionally to them. Further studies are thus needed to try and  
598 address in greater depth gender issues in relation to coping, again possibly relying on methods (e.g., use of  
599 gendered and ungendered scenarios) that would allow for such greater understanding.

600  
601 Likewise, the results only in part confirmed the *implications* of the age-difference hypothesis, namely that with better  
602 coping strategies associated with an increase in age, we would also observe an increase in wellbeing. The trend  
603 that seemed to emerge was on the contrary u-shaped, as it occurred when examining results on the coping  
604 strategy preferences: the very young and the oldest seemed to fare better than those who are 'right into the  
605 adolescence period'. A clear limit of the study, in relation to age, is its cross-sectional design. Longitudinal studies  
606 certainly can offer much clearer data on how coping preferences develop in time. The results of the present study  
607 also suggest that future studies ought to sample the entire adolescence period, including in their sample, and  
608 focusing more, on adolescents from 16 to 18 years of age in comparison to the younger and the older groups,  
609 since the study showed that this age span might be the most 'difficult' one within adolescence.

610  
611 In conclusion, the study allowed us to obtain data that can further inform our understanding of coping in  
612 adolescents and its relationship with well-being, as was its aim - including satisfying the need to collect data on a  
613 variety of national groups, thus taking into account potential differences due to the specific culture in which the  
614 adolescent grows.

615  
616 On the other hand, the complex picture that emerged from most study results highlights new and old questions  
617 about measurement issues, adequacy of the theoretical models and hypotheses, and about age and gender  
618 differences and 'effects' on coping that future studies need to address more in depth and with more refined  
619 methods, including more ecologically valid and longitudinal ones.

## 620 ACKNOWLEDGEMENTS

621  
622 I wish to thank Chiara Verzelletti, Cristina Galli and Sergio Agnoli, research assistants in the larger research project  
623 project, and the Psychology students Giulia Romare, Sara Berton and Martina Valentini for their contribution in  
624 data collection at different periods and in preliminary data analyses. This study was partially carried out within a  
625 larger research project by V.L. Zammuner financed by Fondazione Cariparo.

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