Gender and Age Differences in How Children Cope with Daily Stress

Francisco Manuel Morales Rodríguez¹, María Victoria Trianes Torres¹ y Jesús Miranda Páez²

¹ Department of Developmental and Educational Psychology, University of Malaga, Spain
² Department of Psychobiology and Methodology of Behavioural Science, University of Malaga, Spain

Correspondence: Dr. Francisco Manuel Morales Rodríguez. Department of Developmental and Educational Psychology. School of Psychology. University of Malaga. Campus of Teatinos s/n, 29071, Malaga, Spain. Email: framorrod@uma.es

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Abstract

**Introduction.** The study of coping among students accounts for an interesting subject, as having coping skills guarantees a healthy lifestyle and quality of life. The present study aims to analyze the role played by age and gender on the coping strategies used by Andalusian school students to cope with situations of daily stress. These situations have been extracted from four areas in children’s daily life: family, health, school and peer interaction.

**Method.** Participants were 402 students aged 9 to 12 years-old. Coping strategies were measured with the *Childhood Coping Scale*. This instrument comprises 35 self-report items that assess nine different coping strategies, distinguishing between problem-focused and non-productive coping.

**Results.** Results show that girls scored higher on the coping strategies: “active solution,” “telling the problem to someone else,” “information and guide seeking” and “positive attitude” (problem-focused coping); whereas boys scored higher on “aggressive behaviour” (un-productive coping). As for the age factor, the youngest girls and boys show “keeping the problem to oneself” more frequently.

**Discussion and Conclusion.** The present study sets out to prove the relevance of age and gender in the study of children’s coping in daily situations, which has got direct implications on the assessment and psycho-educational intervention on the area of stress and coping.

**Keywords:** children’s stress, coping, gender, age, school students.

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Diferencias por sexo y edad en afrontamiento infantil del estrés cotidiano

Resumen

Introducción. El estudio del afrontamiento en escolares es un tema de interés, ya que poseer habilidades de afrontamiento es garantía de vida saludable y de calidad de vida. El objetivo del presente estudio es analizar el papel que juega la edad y el sexo en la utilización de diferentes estrategias de afrontamiento ante situaciones de estrés cotidiano en escolares andaluces de educación primaria. Los problemas pertenecen a cuatro dominios de la vida diaria infantil: familiar, salud, escolar y relaciones con los iguales.

Método. Participaron 402 niños de 9-12 años. Las estrategias de afrontamiento se evaluaron con la Escala de Afrontamiento en Niños. Este instrumento consta de 35 ítem en formato de autoinforme que evalúan nueve estrategias de afrontamiento diferentes, distinguiendo entre afrontamiento centrado en el problema y afrontamiento improductivo.

Resultados. Se informa de que las niñas obtienen mayores puntuaciones estadísticamente significativas en las estrategias de afrontamiento solución activa, comunicar el problema a otros, búsqueda de información y guía y actitud positiva (afrontamiento centrado en el problema) mientras que los niños puntúan más en la estrategia conducta agresiva (afrontamiento improductivo). Respecto a la edad, los niños y niñas menores utilizan más la estrategia reservarse el problema.

Discusión y conclusiones. En este estudio se demuestra el papel relevante que juegan edad y sexo en el estudio del afrontamiento infantil en nuestro contexto, lo que tiene implicaciones directas para la evaluación e intervención psicoeducativa sobre el ámbito del estrés y su afrontamiento.

Palabras Clave: estrés infantil, afrontamiento, sexo, edad, escolares.

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Introduction

Coping strategies are here defined as conscious volitional efforts to regulate emotion, cognition, behaviour, physiology, and the environment in response to stressful events or circumstances (Compas, Connor-Smith, Saltzman, Thomsen and Wadsworth, 2001; Frydenberg and Lewis, 1993a). Such resources involve two dimensions of the person: firstly the internal dimension, which is linked to personal variables, age and gender, and secondly, the external dimension, linked to actions that are taken to cope with the demands of an external specific situation or socio-cultural environment. Both dimensions are intertwined, and by doing so they are predisposing individuals to a particular and characteristic behaviour (Zeidner and Saklofske, 1996).

Coping skills are considered an influential element in the promotion of children’s and adolescents’s development, as the coping strategies used by school students to deal with a specific situation reflect a higher or lower degree of adaptation skills and psychological welfare (Cappa, Moreland, Conger, Dumas and Conger, 2011; González, Montoya, Casullo and Bernabéu, 2002). As far as adaptation skills are concerned, these strategies are efficient if the individual has to cope with daily stress because they reduce the risk of illness and increase the chances of remaining healthy and of enjoying a good quality of life (Folkman and Moskowitz, 2004; Urzúa and Jarne, 2008). Additionally, non-productive coping strategies have proven to be linked to emotional maladjustment, including symptoms of anxiety and depression (Lapointe and Marcotte, 2000; Roberts, Roberts and Chen, 2000; Seiffge-Krenke, 2000; Wright, Banerjee, Hoek, Rieffe and Novin, 2010). Further studies (Martínez-Monteagudo, Inglés, Tríanes and García-Fernández, 2011; Sánchez, Rivas and Tríanes, 2006) show that a good social climate has positive effects on psychological adjustment, social and school adaptation as well as children’s and adolescents’ capacity to cope with problems.

There seems to be a broad consensus in accepting the existence of an overall factor related to coping strategies, which is known as the approach to the problem. This factor is defined by the boy’s or girl’s ability to actively solve the problem, either directly or by seeking for help. Likewise, there is a broad consensus regarding the non-productive or dysfunctional
factor, which is defined by less effective coping or maladaptive coping strategies, such as escaping from the situation, getting away, attacking or giving an emotional response.

A number of factors have an impact on the coping strategies used by children, especially age and gender, which account for two aspects that are likely to influence the relationship between risk variables and psychopathological symptoms (Hampel and Petermann, 2005; Lapointe and Marcotte, 2000), as well as the quality of the child's coping responses when faced with a problem or situation (Kelly, Tyrka, Price and Carpenter, 2008).

With regards to gender, consolidated results show that girls are more likely than boys to use problem-focused coping, which involves strategies such as seeking for social support. Girls are also more likely to focus on interpersonal relationships and to express negative feelings (Frydenberg and Lewis, 1993b; Patterson and McCubbin, 1987; Rhode, Lewinson, Tilson and Seeley, 1990; Seiffge-Krenke, 2007); and they also seem to be more vulnerable to social stress (Frydenberg, 1997; Seiffge-Krenke, 2000).

With regards to age, results show that adolescents use a higher number of coping strategies as compared to children (Eisenberg, Fabes and Guthrie, 1997), as well as a wider variety of strategies and more direct methods, most of which include cognitive components (such as active problem solving) (Williams and McGillicuddy-De Lisi, 2000). Likewise, non-productive coping strategies and strategies aimed at expressing emotions are increasingly used with age (Frydenberg and Lewis, 2000). However, the available data is sometimes contradictory as we can see from some cases of research, which demonstrate that the use of problem-focused coping strategies is acquired at the beginning of adolescence and kept throughout (Compas, Orosan and Grant, 1993; Plancherel and Bolognini, 1995). Moreover, further research studies do not assign any particular role to age (Dusek and Danko, 1994; Hampel and Petermann, 2005; Stern and Zevron, 1990). In relation to the aforementioned inconsistent results, Stone, Greenberg, Kennedy-Moore and Newman (1991), and Compas et al., (2001), among others, consider this field of study to be somewhat fragmentised due to the use of different typologies of strategies. In the present study, coping strategies are assessed by means of self-report, which presents four potentially stressful areas in children’s and pre-adolescents’s daily life, and which includes a typology of coping that has been consolidated through the review of available literature.
Objectives and Hypothesis

The main objective of the present study is to establish the existence of differences according to sex and gender in results from the Children’s Coping Scale (CCS), which contributes to the treatment of stress, both in the clinical and educational areas. The specific objectives are as follows: (1) Analysing differences with regards to the type of coping strategy used by each gender, thus checking if boys use a different type of strategy than girls; and (2) finding out if there are any differences in the type of coping strategy used according to age, thus analysing the age-gender interaction, too.

Method

Participants

An incidental sample of 402 students was collected: 190 girls (47.5%) and 212 boys (52.4%), aged between nine and twelve years old, coming from two public schools and two state-funded schools in the city of Malaga. The mean age was 10.49 years old ($SD = 1.00$). As observed in Table 1, the sample is gender-balanced and most participants are between ten and eleven years old, that is, in their late childhood or early adolescence. Schools are located in urban areas with families of middle socioeconomic status.

<table>
<thead>
<tr>
<th>Age</th>
<th>Girl Frequency</th>
<th>Girl Percentage</th>
<th>Boy Frequency</th>
<th>Boy Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 years old</td>
<td>37</td>
<td>45.7%</td>
<td>44</td>
<td>54.3%</td>
</tr>
<tr>
<td>10 years old</td>
<td>61</td>
<td>48.8%</td>
<td>64</td>
<td>51.2%</td>
</tr>
<tr>
<td>11 years old</td>
<td>63</td>
<td>45.9%</td>
<td>74</td>
<td>54.0%</td>
</tr>
<tr>
<td>12 years old</td>
<td>30</td>
<td>50.8%</td>
<td>29</td>
<td>49.1%</td>
</tr>
</tbody>
</table>

Instrument

Children’s Coping Scale, CCS (Morales et al., 2011). This inventory is used in order to assess the coping strategies used by students. The EAN includes coping strategies that have been selected by experts as to represent the area of children’s coping. This self-reported instrument examines coping strategies developed in four problematic situations: the family context, health, homework and social relationships. It is composed of 35 items with a three-point Likert scale response: never, sometimes and very often. The scale assesses different coping strategies, distinguishing two general factors: problem-focused coping and non-productive coping. Problem-focused coping includes the following strategies: active solution, telling the
problem to someone else, seeking for help and advice, and positive attitude; whereas the non-productive coping factor includes the following strategies: indifference, aggressive behaviour, keeping the problem to oneself, cognitive avoidance and behavioural avoidance.

This instrument presents the appropriate psychometric properties, as it shows good adjustment and significant saturations. Reliability indices (the Cronbach alpha coefficient) for each factor/strategy assessed in the present sample ranged from .52 to .85.

Procedure

Schools were contacted and informed in writing of the project objectives. Likewise, parents were asked for their permission and consent in the research, and they were provided with the corresponding instructions and information. In order to administer the tests, students were informed of the voluntary nature of their participation and confidentiality of the data was guaranteed, by means of their overall treatment. The study was approved by the Ethics Committee at the institution that conducted the research.

The test was administered by two researchers, who had been trained to explain the objectives to the teachers as well as to give instructions to the students. Questionnaires were collectively administered in the different classes of Primary Education.

Statistical Analysis

Data was organised and analysed, using the SPSS Statistics 17 software package. The following analyses were conducted: univariate and bivariate descriptive analyses were conducted in order to find out the way variables are distributed in the sample; univariate analyses of variance/simple analyses of variance (ANOVA) were conducted in order to analyse age and gender differences; and a multivariate analysis of the variance/multiple analysis of variance (MANOVA) was conducted in order to find out the cross-effect of the variables. The DVs were coping factors/strategies (problem-focused coping: active solution, telling the problem to someone else, seeking for help and advice, and positive attitude; non-productive coping: indifference, aggressive behaviour, keeping the problem to oneself, cognitive avoidance and behavioural avoidance). Post hoc analyses (homogeneous subsets test) confirmed the differences among these strategy groups as well as the appropriateness of such classification. The IVs were age and gender.
Results

Table 2 below shows the descriptive analyses of the strategies (mean and standard deviation) of the overall sample according to gender and age. In this sample, results show that the active solution strategy is used the most, often by 12 year-old girls.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>9 (SD)</th>
<th>10 (SD)</th>
<th>11 (SD)</th>
<th>12 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Girl Mean</td>
<td>Boy Mean</td>
<td>Girl Mean</td>
<td>Boy Mean</td>
<td>Girl Mean</td>
</tr>
<tr>
<td>Indifference</td>
<td>6.2 (1.3)</td>
<td>6.0 (1.5)</td>
<td>5.5 (1.6)</td>
<td>6.2 (1.4)</td>
<td>6.3 (1.8)</td>
</tr>
<tr>
<td>Aggressive Behaviour</td>
<td>5.1 (1.6)</td>
<td>5.6 (2.0)</td>
<td>4.6 (1.4)</td>
<td>5.4 (1.6)</td>
<td>5.3 (1.6)</td>
</tr>
<tr>
<td>Keeping the Problem to Oneself</td>
<td>6.8 (1.7)</td>
<td>7.0 (1.8)</td>
<td>6.4 (1.8)</td>
<td>6.3 (2.0)</td>
<td>6.5 (2.0)</td>
</tr>
<tr>
<td>Cognitive Avoidance</td>
<td>7.1 (1.6)</td>
<td>7.2 (1.9)</td>
<td>6.8 (1.8)</td>
<td>7.1 (1.8)</td>
<td>7.4 (2.0)</td>
</tr>
<tr>
<td>Avoidance</td>
<td>6.7 (1.6)</td>
<td>6.4 (1.9)</td>
<td>6.3 (1.7)</td>
<td>6.7 (1.6)</td>
<td>7.0 (2.0)</td>
</tr>
<tr>
<td>Behavioural Avoidance</td>
<td>10.5 (1.6)</td>
<td>10.1 (1.9)</td>
<td>10.5 (1.6)</td>
<td>10.1 (1.5)</td>
<td>10.5 (1.8)</td>
</tr>
<tr>
<td>Active Solution</td>
<td>8.3 (1.6)</td>
<td>8.2 (1.8)</td>
<td>7.7 (1.8)</td>
<td>7.2 (1.8)</td>
<td>8.5 (2.0)</td>
</tr>
<tr>
<td>Telling the Problem to Someone Else</td>
<td>9.5 (2.0)</td>
<td>9.1 (2.1)</td>
<td>9.8 (2.1)</td>
<td>9.0 (2.3)</td>
<td>10 (2.3)</td>
</tr>
<tr>
<td>Positive Attitude</td>
<td>32.1 (2.0)</td>
<td>32.3 (2.3)</td>
<td>29.8 (2.1)</td>
<td>31.7 (1.6)</td>
<td>30.7 (2.0)</td>
</tr>
<tr>
<td>Non-Productive Coping</td>
<td>37.1 (5.2)</td>
<td>35.0 (7.1)</td>
<td>36.0 (4.1)</td>
<td>34.0 (6.2)</td>
<td>37.3 (5.9)</td>
</tr>
<tr>
<td>Problem-focused Coping</td>
<td>37.1 (4.9)</td>
<td>35.0 (6.2)</td>
<td>36.0 (4.7)</td>
<td>34.0 (6.1)</td>
<td>37.3 (5.5)</td>
</tr>
</tbody>
</table>

All coping strategies present a gender-based differential distribution, as observed in Table 3 from the analyses of variance (ANOVAs), except in the cases of avoidance strategies (both behavioural and cognitive avoidance) and keeping the problem to oneself. In these particular cases, no significant differences can be appreciated in the sample. Results show that girls are more likely than boys to use all the problem-focused coping strategies that have been analysed: active solution, telling the problem to someone else, seeking for help and advice, and positive attitude.
With regards to the “indifference” strategy (non-productive coping), there are statistically significant differences based on gender. This strategy is commonly used among nine year-old girls, although in ages ranging from ten to twelve, boys are more likely than girls to use it. Likewise, with regards to the “aggressive behaviour” strategy (non-productive coping), the average score is higher among boys.

In relation to age-based differences, the only clear differences were detected with regards to the strategy of “keeping the problem to oneself”. As observed in Figure 1, in both gender groups, the younger the pupil is, the more frequently he/she turns to this strategy. The decrease in the use of this strategy as students become older is statistically significant (p<.01), and it remains especially common among nine year-old boys and girls.

![Medias marginales estimadas de Reservarse el problema](image)

**Figure 1.** Estimated marginal means regarding “keeping the problem to oneself” according to age

A multivariate analysis of the variance was conducted in order to find out the effects of interactions on coping strategies. As observed in Table 3, the two focal factors – age and gender – showed simple significant effects, mostly at 99% (p<.01) in the case of gender, and 95% (p<.05) in the case of age. However, the age-gender interaction in this sample did not show statistically significant effects. As for the “cognitive and behavioural avoidance”
strategies, no statistically significant differences were found. With the purpose of finding out the dimension of the differences among groups, the effect size was calculated for each significant difference. The range of effect sizes varies between .19 and .50, and differences become higher as girls get older.

**Table 3. Differences in coping strategies based on gender and age**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Age-Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indifference</td>
<td>11.5 .00 .02 .85 .46 .00 2.1 .10 .01</td>
<td></td>
</tr>
<tr>
<td>Aggressive Behaviour</td>
<td>13.6 .00 .03 2.1 .09 .01 1.3 .26 .01</td>
<td></td>
</tr>
<tr>
<td>Keeping the Problem to Oneself</td>
<td>1.7 .19 .00 2.8 .04 .02 72 .54 .01</td>
<td></td>
</tr>
<tr>
<td>Cognitive Avoidance</td>
<td>.44 .50 .00 1.9 .13 .01 27 .84 .00</td>
<td></td>
</tr>
<tr>
<td>Behavioural Avoidance</td>
<td>.05 .81 .00 1.5 .20 .01 1.5 .21 .01</td>
<td></td>
</tr>
<tr>
<td>Active Solution</td>
<td>13.8 .00 .03 .48 .69 .00 1.3 .27 .01</td>
<td></td>
</tr>
<tr>
<td>Telling the Problem to Someone Else</td>
<td>6.0 .01 .01 2.5 .06 .01 .80 .49 .00</td>
<td></td>
</tr>
<tr>
<td>Seeking for Help and Advice</td>
<td>7.2 .00 .01 .52 .66 .00 98 .40 .00</td>
<td></td>
</tr>
<tr>
<td>Positive Attitude</td>
<td>8.2 .00 .02 .90 .44 .00 32 .80 .00</td>
<td></td>
</tr>
<tr>
<td>Non-Productive Coping</td>
<td>5.6 .02 .01 1.0 .37 .00 .48 .69 .00</td>
<td></td>
</tr>
<tr>
<td>Problem-Focused Coping</td>
<td>16.4 .00 .04 .83 .48 .00 18 .90 .00</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion and Conclusions**

The present study has adopted a multi-causal approach to coping, *i.e.* dependent on situational demands, student’s development, gender and age (Goyen and Anshel, 1998), among other factors. This is a major approach nowadays, considering that researchers are looking for complex explanations as to what are the causes of children’s psychopathology, a context where the stress variable and the coping variable have an important role to play, both as mediating variables and as risk factors (Grant *et al.*, 2006). The aim of the present study was to find out age and gender differences in how children cope with a selection of daily stressors or problems in their everyday life.

Significant differences based on gender were found in the use of most coping strategies in favour of girls, especially in those related to problem-focused coping. More specifically, the “active solution” strategy has produced a significant contrast, where girls score higher than boys. The aforementioned results are in line with current studies, which report that girls tend to make a bigger effort to look for active solutions to the problem (González *et al.*, 2002; Patterson and McCubbin, 1987; Seiffge-Krenke, 2007; Seiffge-Krenke
and Stemmler, 2002). In contrast, when it comes to non-productive coping, the tendency is for boys of all ages to score higher than girls. Other research studies also conclude that the use of non-productive coping strategies such as “ignoring the problem” and “keeping the problem to oneself” increases as boys become older (Frydenberg and Lewis, 2000). Further research studies also show concordant results with the present study, as they report that boys score higher than girls in non-productive coping, because this type of coping includes a number of components, among which we find aggression, keeping the problem to oneself, and indifference. Thus, such results can be related to other results that report that boys use more non-productive coping strategies than girls, especially aggression and indifference (Baker, 2006; Frydenberg, 1997; Prior, Smart, Sanson and Oberklaid, 1993), as well as ignoring the problem and keeping it to oneself (González et al., 2002). Further studies in mid-childhood (Hampel and Petermann, 2005; Sandstrom, 2004) also find convergent results. However, there are other points of view stating that differences in non-productive coping strategies between boys and girls are not well-perceived in mid-childhood, but are better differentiated in adolescence (Reijntjes, Stegge and Meerum-Terwogt, 2006).

With regards to cognitive avoidance and behavioural avoidance strategies, they do not discriminate between boys and girls, a result that seems to be in line with a general literature review, which does not consider these strategies to play any relevant role (Compas et al., 2001). Additionally, the gender variable produces significant differences in the use of the following strategies: positive attitude, telling the problem to someone else and seeking for help and advice, where girls score higher than boys. These results are concordant with previous research studies (Frydenberg and Lewis, 1993b, 2000; González et al., 2002; Hampel and Petermann, 2005; Seiffge-Krenke, 1993).

Differences based on age are discussed below, taking into account that this factor has shown some main differences, although none in interaction with the gender factor. More specifically, age seems to have less influence (individually) than gender, and produces statistically significant differences regarding the use of the coping strategy of “keeping the problem to oneself”, which is more frequently used by young boys (nine year-olds). Some experts point out that, as age increases throughout adolescence, so does the use of the emotional strategy. This strategy includes aspects such as a higher tendency to express emotions and to tell the problem to someone else (Frydenberg and Lewis, 1993b). In this sense, it can be expected of younger children to have a tendency to keep the problem to
themselves when it comes to coping with fear-inducing situations. Finally, it is worth stressing that, in relation to the gender-age interaction, there is no significant result in the analysed contrasts; a finding that is consistent with other research studies (Williams and McGillicuddy-De Lisi, 2000).

In order to reach a conclusion extracted from gender and age differences, a girls’ profile is drawn, which is in line with the new gender socialization roles. This profile, however, is not clear-cut. Girls seem to be more capable of active solutions when coping with problems, and they seem to feel motivated enough to tackle the problem in order to solve it. Girls also score higher in those strategies consisting of communicating the problem and seeking for help and advice. The latter result could be due to the fact that girls find it easier to express their emotional distress than boys, as they feel no social constraint in doing so. The different processes of gender socialization help to explain this fact. Girls tend to give higher priority to interpersonal relationships than boys in all primary socialization processes referring to gender identity, relationships and stereotypes within our society (Crick and Grottpeter, 1995). This might explain girls’ higher predisposition to report their emotional maladjustment as compared to boys, who might feel more reluctant to show and express their real emotions (due to social desirability). The different primary and secondary processes of gender socialization may lead to a higher permissiveness on girls’ part with regards to expressing emotions (Hampel and Petermann, 2005; Kouzma and Kennedy, 2002).

To conclude, it is worth noting that the present research proves the relevance of the role that age and gender play in the study of children’s coping processes, and thus has direct implications for the assessment and psycho-educational intervention in the field of study of stress and stress coping strategies. Such assessment and psycho-educational intervention cannot be implemented without considering the impact of the above two variables, which have an important role to play as mediating or moderating variables in complex multidimensional and multivariate approaches.

Concerning the potential limitations of the present study, it is worth mentioning the recommendation, among others, of using deeper multivariate analyses in future studies, in order to reach more precise and solid conclusions. Future research may also consider assessing the type of parenting used to raise boys and girls respectively. In spite of such limitations, the findings of the present research study are believed to contribute to the develop-
ment of more effective preventive actions and psycho-educational interventions in the area of children’s coping with daily stress. They therefore help to design better treatments. The above implications lead to an approach, which revolves around the prevention of school-children’s everyday stress, based on programmes and educational activities that are aimed at dealing with stress whilst also using more productive and effective coping strategies.

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