Brief report: Coping among Austrian children and adolescents

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Abstract

The study investigated age and gender effects on coping with common stressors among 494 Austrian children and adolescents (age 8–14 years). Participants were subdivided into subgroups of late children comprising third and fourth graders, early adolescents consisting of fifth and sixth graders, and middle adolescents including seventh graders. Middle adolescents showed a maladaptive coping pattern with decreased problem and emotion-focused coping strategies and increased passive avoidance and aggression. Females scored higher on social support and also on the maladaptive coping strategy rumination. Female middle adolescents reported higher resignation than their male contemporaries and female children. Results suggest the application of primary preventive stress management programs in late childhood and early adolescence.

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Introduction

Adolescence is a strong transition period, which is characterized by heightened normative and non-normative stressors. Previous research has shown that the adverse effects of stress on psychosocial adjustment are moderated and mediated by internal resources such as coping (for

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reviews, see Compas, Connor-Smith, Saltzman, Harding Thomsen, & Wadsworth, 2001; Grant et al., 2006).

Although a greater diversity and flexibility in coping abilities have been found in adolescents (Roecker, Dubow, & Donaldson, 1996), curvilinear trends with maladaptive coping during early and middle adolescence compared to childhood and late adolescence are suggested. Thus, adolescents (age 11–15) showed higher levels of maladaptive coping strategies such as resignation, self-criticism, rumination, aggression, and avoidance and lower levels of adaptive strategies like distraction and seeking for social support (Donaldson, Prinstein, Danovsky, & Spirito, 2000; Hampel & Petermann, 2005, 2006; Seiffge-Krenke, 2000). Inconsistent results on problem-focused coping point to a U-shaped curve for problem solving and suggest increases in meta-cognitive capacities in mid adolescence (Donaldson et al., 2000; Rossman, 1992; Wertlieb, Weigel, & Feldstein, 1987).

Regarding gender effects, strong evidence has been accumulated for a preference of girls to employ social support on common stressors (e.g., Donaldson et al., 2000; Hampel & Petermann, 2005, 2006; Roecker et al, 1996; Rose & Rudolph, 2006). Furthermore, girls applied more emotion-focused coping such as relaxation (de Anda et al., 2000; Donaldson et al., 2000) as well as more maladaptive strategies such as emotional ventilation, rumination, avoidance, and resignation (Connor-Smith, Compas, Wadsworth, Harding Thomsen, & Saltzman, 2000; Donaldson et al., 2000; Hampel & Petermann, 2005, 2006).

Only few studies have investigated the gender-by-age interaction and suggested a maladaptive coping pattern in females aged 11–15 (e.g., Hampel & Petermann, 2005; Jose & Brown, 2007). Several models were constructed to explain, that the maladaptive coping pattern with a high use of ruminative and avoidant coping puts female early and middle adolescents at a high risk for the development of emotional problems in late adolescence (cf. Grant et al., 2006; Hankin & Abramson, 2001; Nolen-Hoeksema, 1987).

The aim of the present study was to replicate earlier results of age and gender effects on coping with common stressors. It was predicted that the emotion-focused coping strategy distraction would be decreased and maladaptive strategies would be increased among middle adolescents in particular. Additionally, it was expected that females would score higher on the problem-focused strategy social support and on maladaptive strategies than males. With regard to the interaction effect, it was hypothesized that female adolescents would show a maladaptive coping pattern with less adaptive and more maladaptive coping strategies.

Method

Participants and procedure

Participants of the present study were 494 children and adolescents recruited from six elementary and three grammar schools in Graz, Austria. They were aged from 8 to 14 years and subdivided into subgroups of late children comprising third and fourth graders (n = 156, 64 males, 92 females, M = 9.44, S.D. = 0.68 years), early adolescents consisting of fifth and sixth graders (n = 213, 97 males, 116 females, M = 11.35, S.D. = 0.72 years), and middle adolescents including seventh graders (n = 125, 60 males, 65 females, M = 12.78, S.D. = 0.47 years). All
primary school children and 95% of the students of the secondary school agreed to participate in the study.

Measure

The German Coping Questionnaire for children and adolescents (Stressverarbeitungsfragebogen für Kinder und Jugendliche, SVF-KJ) was used to assess coping strategies (cf. Hampel & Petermann, 2005; Hampel, Dickow, & Petermann, 2001). Related to an interpersonal and an academic stressor, nine different coping strategies were assessed, each represented by four items. In accordance with Lazarus and Folkman (1984), the two adaptive coping styles ‘emotion-focused coping’ and ‘problem-focused coping’ were measured. Emotion-focused coping comprised of minimization and distraction. Problem-focused coping consisted of situation control, positive self-instructions, and social support. In addition, four subtests represented the maladaptive coping style, composed by passive avoidance, rumination, resignation, and aggression.

Participants rated the likelihood for each coping response on a 5-point Likert scale (0 = not at all, 4 = in any case). Cross-situational coping was obtained by calculating mean scores across data of coping with both stress domains. Coping strategies showed sufficient to good internal consistency (mean Cronbach’s alpha = 0.80, Fisher’s z-transformed).

Data analysis

A multivariate analysis of variance (MANOVA) on the nine cross-situational scores of coping strategies using the age group (late childhood, early, and middle adolescence) and gender as between-subjects factors was performed. With regard to multiple tests, only results of univariate analyses with $p < .01$ are considered. To locate mean differences, mean comparisons by Bonferroni were conducted with $p < .05$.

Results

The two-way MANOVA revealed significant main effects of the age group (Wilks’ $F(18,960) = 5.06, p < 0.001, \eta^2 = 0.087$) and gender (Wilks’ $F(9,480) = 2.19, p = 0.022, \eta^2 = 0.039$) and a significant interaction (Wilks’ $F(18,960) = 1.73, p = 0.029, \eta^2 = 0.031$). Middle adolescents scored lower on distraction, situation control, positive self-instructions, and social support as well as higher on passive avoidance and aggression than late children (Table 1). In addition, middle adolescents showed less social support as well as higher passive avoidance and aggression than early adolescents. Finally, compared to late children, early adolescents reported less distraction and social support and higher passive avoidance.

With respect to gender, univariate ANOVAs revealed that females applied more social support and rumination than males. Furthermore, the simple interaction indicated that female middle adolescents scored higher on resignation than female late children. Male late children reported more resignation than male early adolescents. Finally, male late children showed higher resignation than females of the same age, whereas female middle adolescents endorsed more resignation than male contemporaries.
Table 1
Means (M) and standard deviations (S.D.) for coping strategies by age group and gender and summary of ANOVA results

<table>
<thead>
<tr>
<th>Scale</th>
<th>Grade level</th>
<th>Male</th>
<th>Female</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/4</td>
<td>5/6</td>
<td>7</td>
<td>3/4</td>
</tr>
<tr>
<td>MIN</td>
<td>2.15 (0.94)</td>
<td>2.11 (0.75)</td>
<td>2.27 (0.66)</td>
<td>2.09 (0.68)</td>
</tr>
<tr>
<td>DIS</td>
<td>2.09 (0.96)</td>
<td>1.97 (0.79)</td>
<td>1.86 (0.74)</td>
<td>2.27 (0.96)</td>
</tr>
<tr>
<td>STC</td>
<td>2.82 (0.85)</td>
<td>2.79 (0.77)</td>
<td>2.44 (0.65)</td>
<td>2.92 (0.79)</td>
</tr>
<tr>
<td>POS</td>
<td>2.89 (0.81)</td>
<td>2.79 (0.76)</td>
<td>2.59 (0.68)</td>
<td>3.04 (0.81)</td>
</tr>
<tr>
<td>SOS</td>
<td>2.71 (0.83)</td>
<td>2.36 (1.02)</td>
<td>1.89 (0.84)</td>
<td>2.75 (0.87)</td>
</tr>
<tr>
<td>PAV</td>
<td>1.49 (0.92)</td>
<td>1.58 (0.83)</td>
<td>1.88 (0.85)</td>
<td>1.40 (0.93)</td>
</tr>
<tr>
<td>RUM</td>
<td>1.86 (1.02)</td>
<td>1.89 (1.01)</td>
<td>1.78 (0.83)</td>
<td>2.00 (0.96)</td>
</tr>
<tr>
<td>RES</td>
<td>1.19 (0.93)</td>
<td>0.93 (0.74)</td>
<td>1.01 (0.61)</td>
<td>0.93 (0.77)</td>
</tr>
<tr>
<td>AGG</td>
<td>1.28 (0.82)</td>
<td>1.32 (0.85)</td>
<td>1.56 (0.73)</td>
<td>1.19 (0.68)</td>
</tr>
</tbody>
</table>

Note. Abbreviations of subscales: MIN, minimization; DIS, distraction; STC, situation control; POS, positive self-instructions; SOS, social support; PAV, passive avoidance; RUM, rumination; RES, resignation; AGG, aggression.

*p < .01.
**p < .001.
* p < .05 for all three simple comparisons.
^b p < .05 for simple comparisons of 7th graders with 3/4th graders.
^c p < .05 for simple comparisons of 7th graders with 5/6th graders.
^d p < .05 for simple comparisons of 5/6th graders with 3/4th graders.
Discussion

As predicted, middle adolescents in particular showed a maladaptive coping pattern. The heightened aggression in middle adolescents supports the increased risk for the development of externalizing problems among adolescents, which were significantly related to aggression (Hampel & Petermann, 2006; for review, see Compas et al., 2001). Similar to cross-sectional findings of Donaldson et al. (2000), the present study has found decreased levels in all three problem-focused coping strategies among middle adolescents compared to late children. On the other hand, investigating German third to seventh graders, Hampel and Petermann (2005) failed to show age effects on problem-focused coping. However, results did not confirm an adaptive coping pattern (cf. Roecker et al., 1996). Instead, results support the assumption that the transition from childhood to adolescence is a developmental period of high vulnerability, in which risk factors for the development of psychological maladjustment are prominent.

Consistent with prior research, males showed higher aggression than females fostering the assumption that males tend to cope externally and are prone to develop externalizing symptoms (cf. Compas et al., 2001; Grant et al., 2006). Also congruent with the literature, females applied more social support and rumination on stressful encounters than males (de Anda et al., 2000; Donaldson et al., 2000; Hampel & Petermann, 2005, 2006; Roecker et al., 1996). Contrary to results of the German sample by Hampel and Petermann (2005), showing a maladaptive coping pattern in female early adolescents, increased resignation in female middle adolescents were found with the present Austrian sample. The differences in these results found by both European samples may be attributed to sample characteristics. Whereas the Austrian adolescent sample was recruited only in grammar schools, the German adolescent sample included students of grammar schools as well as schools with lower education levels. Interestingly, males in late childhood showed increased resignation than females of the same age, reflecting higher prevalence rates in depression among male children.

Some limitations to this study have to be acknowledged. First, the age groups investigated in the study included children and adolescents aged between 8 and 14 years. Thus, later developmental changes could not be detected. Studies suggest that in the year of 15 a ‘turning point’ can be observed, indicating stability in approach and avoidant coping among late adolescents (Seiffge-Krenke, 2000), especially in rumination among females (Jose & Brown, 2007). Secondly, results of the present study using a cross-sectional design have to be replicated by longitudinal research. Thirdly, results relied on assessment of self-reports and have not taken other informants’ or observational data into account. However, self-report measures have been shown to be significantly correlated with peer and parents’ report measures and seem to be a valid methodology for assessing those covert processes (for review, see Compas et al., 2001).

In conclusion, the findings suggest an adverse cross-situational coping pattern among seventh graders with decreased adaptive coping strategies in conjunction with increased maladaptive coping strategies. Moreover, results confirmed a maladaptive coping pattern among females, in particular among female middle adolescents. Results on perceived stress, which were not reported here, suggested increased interpersonal stress in female adolescents. Thus, similar to Jose and Brown (2007), our findings support assumptions that girls rely on the use of rumination in stressful events and, due to this coping style, are prone for the development of depression and anxiety (Hankin & Abramson, 2001; Nolen-Hoeksema, 1987). In sum, the results indicate that
primary preventive programs should be applied during late childhood and early adolescence. Furthermore, gender-specific programs, which should strengthen positive cognitive styles among girls and social competence among boys are supported.

References


