School-related stress and family stress: Differences in stress perception and coping style in healthy and clinical groups

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School-related stress and family stress: Differences in stress perception and coping style in healthy and clinical groups

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ABSTRACT This study analyzes how adolescents in general and clinically disturbed adolescents in particular cope with normative stressors. Anticipatory coping and coping after an event has happened were investigated in 77 adolescents differing in health status, gender, and age. Coping was investigated in two specific stressful situations, school-related stressors and conflicts with parents via the Coping Process Interview as well as questionnaires. Results obtained from the interviews were validated by the results of the standardized questionnaires. The Coping Process Interview revealed that the two types of stressors were not structurally similar. They differed with respect to appraisal of the event, causal attribution, the amount of thought, feelings and actions in order to deal with the stressors, but not in achieved effects and reappraisal. Clinically referred and non-conspicuous adolescents significantly differed in their stress perception and coping style, with clinically referred adolescents exhibiting a more dysfunctional coping style when dealing with both types of stressors. However, no differences emerged, depending on the symptomatology in the clinical group.

Key words: Coping process, Family conflicts, School-related stress.

The number of changes occurring in adolescence, compared with other developmental stages, is unusually high. Early adolescence in particular is a period of rapid cognitive, social, emotional and physical change (Forman, 1993; Simmons, Burgeson, and Carlton-Ford, 1987) have pointed out that the sheer number of changes occurring during this time exerts an impact on health. For example, adolescents experience physical maturation, and change in school (Isakson & Jarvis, 1999; Tyszkowa, 1990). In addition, conflicts with parents increase (Besevegis & Giannitsas, 1996; Seiffge-Krenke, 1999; Smetana, Yau, & Hanson, 1991) and family relations become perturbed. It is not until late adolescence that parent-adolescent relationships become less conflictual and more balanced. Research has consistently found gender differences in stress perception with females experiencing higher levels of stress, particularly at early adolescence (Copeland & Hess, 1995; Seiffge-Krenke, 1995). In some studies, the effects of minor stressors or everyday hassles on symptomatology were stronger than the effects of major events or critical life events. However, the proportion of variance accounted for by stressful events is typically small (less than 15%, see Compas & Phares, 1991), suggesting that other factors may influence this association.

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Researchers have proposed that the manner in which individuals adapt and cope with stressful encounters may influence adaptation (Roth & Cohen, 1986; Suls & Fletcher, 1985). The coping process is particularly important during adolescence because it is the first time that young people are confronted with many different types of stressors and may not yet have a wide variety of coping strategies to rely on (Patterson & McCubbin, 1987). Analyses of age differences in coping style suggest that the age of 15 is a turning point in the use of more efficacious and adaptive strategies in dealing with stress. Older adolescents are more active, have a broader range of coping strategies and a higher ability to view problems from multiple perspectives (Ebata & Moos, 1994; Seiffge-Krenke, 1995). In addition, gender differences emerged with females being more inclined to use social support when dealing with stressors (Frydenberg, 1997; Kurdek, 1987, Seiffge-Krenke, 1995).

Furthermore, the styles of coping with stress that evolve during early and mid-adolescence undoubtedly influence how the individual will deal with new stressors occurring in late adolescence and at the transition to adulthood. Studies on normative samples revealed that most adolescents are competent copers, well able to deal with diverse normative stressors (Seiffge-Krenke, 1995). The proportion of functional coping (e.g., a style including active problem solving like seeking information or advice, accepting social support as well as internal reflection about possible solutions) and a more dysfunctional coping style (like withdrawal and avoidant coping) amounted to 4:1 in diverse cross-cultural samples (Seiffge-Krenke, 1992; Seiffge-Krenke & Shulman, 1987).

While a more functional coping style is typical for non-referred adolescents, most studies on clinically referred samples found high levels of a more dysfunctional coping style. They found that avoidant coping and withdrawal are frequent coping modes employed in diverse clinical samples. Adolescents diagnosed as being depressed, anxious, delinquent and drug dependent were all characterized by high levels of withdrawal (Seiffge-Krenke, 1993, 1998). No gender differences emerged with respect to the high levels of this dysfunctional coping style applied in clinical samples. Similarly, Chan (1995) reported higher levels of avoidant coping in depressed adolescents, independent of gender. Ebata and Moos (1991) found that youths suffering from depression or conduct disorders relied more on avoidant coping and that depressed adolescents used significantly less approach-oriented coping than all other groups. In examining the link between coping and well-being, they found that approach-oriented coping (i.e., attempts to act or modify stressors through cognitive or overt behavior) was linked to positive adaptation. In contrast, avoidant coping was generally associated with poor adaptation. All forms of avoidant coping, whether stable or not, were linked to higher depressive outcome in the study of Seiffge-Krenke and Klessinger (2000).

Research to date is meager with respect to different methods used when assessing coping style. Most research focuses on questionnaires, whereas the coping process has not been systematically investigated. Generally, the coping process has three key features: the individual's action, the specific context of coping, and how an individual's actions change as the stressful encounter unfolds. They characterize coping as a process of continuous appraisals and reappraisals of a changing person-environment relationship. The reappraisal of what is happening in turn influences subsequent coping efforts. The coping process is thus continuously mediated by cognitive reappraisals and should, optimally, lead to a person-environment fit. The entire coping process may occur within a few moments or hours, or it may continue over weeks or even years. The studies of Seiffge-Krenke (1995) confirmed the generally positive and adaptive way of dealing with minor stressors in nonclinical adolescents by using two different methods,
anticipatory coping (measured by the Problem Questionnaire and the Coping Across Situations Questionnaire, CASQ) and the Coping Process Interview, which assessed stress and coping immediately after the stressful event had happened. Overall, the similarities in coping styles measured by these two methods were impressive, but there were also important differences. More negative affects and more action blockade and passivity were experienced immediately after a stressful event occurred, while coping efforts were predominantly cognitive. In summary, apart from the greater emphasis on active coping in anticipatory coping and the less active, more internal approach in coping immediately after the stressor occurred, the similarities in coping behavior in both approaches were impressive. However, little is known about the coping process in clinical samples. Do they experience the same stressors as equally stressful? Is their appraisal in everyday stressors and conflicts with parents similar to that of nonclinical samples? Moreover, how do they cope with these normative, age-typical stressors and, finally, after coping, do they appraise the situation?

Based on the above mentioned research gap, the present study aimed at integrating two approaches when dealing with stress, anticipatory coping and coping after a stressful event had happened. Two samples differing in health status (a clinical sample and a non conspicuous, healthy sample) and age (early adolescents and age) were investigated. Two different normative stressors, school-related stressors (getting a bad grade) and stressors related to the family (conflicts with parents) were selected for closer examination. The ways of coping with these two normative stressors was assessed via two different methods, the Coping Process Interview, which allows for an "in vivo" approach by interviewing the adolescent shortly after a stressful event has taken place, and a more standardized approach. In summary, the two constructs, stress and coping, were analyzed in two groups differing in health status and in age. Two methods were combined to allow for deep analysis of stressful events and the coping process as well as the validation via standardized questionnaires.

Method

Sample

Because of the complex and time consuming approach of the Coping Process Interview (range 20 to 50 min.; mean length: about 30 min.) and the focus on the coping process, the sample was small. The sample consisted of 77 adolescents, 35 early adolescents (12 to 13 years) and 42 late adolescents (16 to 17 years). Gender was balanced in each group. Roughly half of them belonged to the clinical sample which was recruited from a psychiatric institution for children and adolescents. These patients lived on an inpatient unit when we approached them. They were diagnosed as having internalizing syndromes (n = 13) such as phobia and depression; externalizing disorders (n = 7), such as antisocial behavior drug abuse; mixed disorders, (n = 4) and psychosomatic diseases (n = 12) such as anorexia and bulimia. Of the sample 71% lived in two parent families, and a higher percentage of adolescents from the clinical group lived within single parent families or in a step family (39% as compared to 20% in the healthy group). The number of siblings was comparable (healthy: 1.23, clinical group: 1.44). More clinical adolescents were the youngest child in the family, compared to the healthy group. Of the sample 91% were of German origin in both groups. The education of the father was higher in the healthy group (completion of college/ university: 30 fathers as compared to 11 fathers). The same holds true for the mother's education. Finally, 37% of the mothers were not employed.

In the clinical sample (N = 36), all were in
treatment at the time of our study with a mean length of 4.33 months. But also 6 from the 41 healthy adolescents had been in counseling once in their life (ambulatory treatment and counseling).

Instruments

Coping immediately after a stressful event occurs. The Coping Process Interview (Seiffge-Krenke, 1995) was developed to assess perceived stressors and coping strategies immediately after their occurrence. The original version developed in 1995 consists of 7 open questions pertaining to information in the following domains:

1. The definition of the situation: a description of the stressful event in detail
2. The context in which the event occurred
3. The subjective interpretation of the causes
4. The appraisal of the event: as threatening, challenging or loss related
5. The coping process: including thought, feelings and actions to deal with the stressor
6. The evaluation of intended and achieved effects
7. The reappraisal.

In this interview, the precise meaning of the questions can be emphasized, the adolescent is given enough time to think carefully before answering, and the interviewer can repeat questions that are unclear. Prompts and alternative questions ensure that the participant understands the question and responds in the desired amount of depth and detail. This makes the interview an almost perfect medium for deep analysis of the coping process. Consequently, this procedure is somewhat time consuming (mean length 30 min.). In addition, event parameters such as importance, controllability, and stressfulness of the event (Seiffge-Krenke, 1995) were assessed. Furthermore, a scale was included which allows for a more detailed assessment of emotions during the coping process. In contrast to the original study (see Seiffge-Krenke, 1995) where the participants were asked to phone us when a stressful event had happened (thus prompting the immediate execution of the Coping Process Interview), in this study participants were asked to report a most recent stressful event in school and at home.

Stress perception and anticipatory coping. Normative stress was measured using the Problem Questionnaire (Seiffge-Krenke, 1995), which assesses the stressfulness of 64 items covering seven domains:

1. Problems with school
2. Problems with future
3. Problems with parents
4. Problems with peers
5. Problems with leisure time
6. Problems with romantic relationships
7. Self-related problems.

Two problem domains were selected: Problems with school: 8 items (for example item 1 “There is great pressure to get the best marks at school”) and Problems with parents: 10 items (for example item 19 “I fight with my parents because my opinions about many things differ from theirs”). The adolescents were asked to rate the perceived stressfulness of the problems in these two domains, ranging from 1 “not stressful at all” to 5 “highly stressful”. Cronbach alphas ranged between .79 and .84.

Anticipatory coping was measured via the CASQ (Seiffge-Krenke, 1995). Twenty coping strategies across eight different problem domains such as school, teachers, parents, peers, romantic relations, self, and leisure time were assessed. The adolescents were free to mark several coping strategies for each area. Three factors emerged representing the following coping styles: active coping (e.g., item 1 “I discuss the problem with my parents/other adults”), internal coping (e.g., item 10 “I think about the problem and try to find different solutions”), and withdrawal (e.g., item 20 “I withdraw because I cannot change anything
The Cronbach alphas for these dimensions were .80, .77 and .73, respectively. For this study, 20 coping strategies employed in two domains, school and parents were assessed.

Procedure

The clinical samples \((N = 36)\) were interviewed individually during their stay on an inpatient psychiatric unit for children and adolescents. The healthy control group \((N = 41)\) was approached in schools and interviewed individually after school. After the interview, the adolescents filled out the Problem Questionnaire and the CASQ. The mean duration of the interviews did not differ in both groups (healthy group: 36 min., clinical group: 34 min.).

Results

Results from the coping process interview

Most of the results reported here were based on Chi square; in some variables, also one-way ANOVAs and three way ANOVAs (Gender x Age x Health status) were conducted.

The context in which the event occurred

Results showed that school-related stressors and family conflicts were not structurally similar events, but were described quite differently according to causes of stress, recency and event parameters of the stressful event coping behavior and persons involved in the stressful event.

Both clinical and healthy participants described the school-related stressors (getting low marks) as more homogeneous and named a deficiency in motivation, personal problems, and stress-related situations as factors contributing to this event. The clinical participants in addition named their symptomatology as a reason for the drop in achievement. For 59% of the adolescents (no differences between groups) this stressful event took place only a few days ago and for 41% the time period consisted of weeks or months. Regarding persons who were involved in the stressful event, roughly 41% in both groups named nobody besides themselves and 22% the teacher, 18% peers and an additional 17% either the teacher and parents or teacher and other pupils.

With respect to conflict with parents, altogether 7 different aspects were named (for example: conflicts with peers, leisure time, the future, school, self-related problems, generation gap, parenting behavior, and other stressful events). Again, the clinical group named their symptomatology as a factor contributing to the conflict with parents. As expected, more conflicts were reported with mothers (18%) than fathers (5%). Noteworthy, 25% of the participants reported having conflicts with both parents and 28% with parents and siblings. Conflicts with parents were even more recent than school-related stressors: 74% in both groups reported that the conflict dated back to only some days; 26% reported that it dated back to several weeks. No differences emerge in the recency of the conflict and those who participated between both groups differing in health status.

Duration of the stressor

We also asked about the duration of the stressful events, i.e., days, weeks, if not longer. No differences emerged with respect to mean duration of both stressors between the clinical group and the control group (due to the distribution of the Mann-Whitney-U test which was nonsignificant) i.e., the duration of both stressors for each group was estimated as being the same. Thus, there is no indication pertaining to a more noticeable chronification of stress within the clinical group.
Appraisal of the event

To assess the appraisal of the two stressful events, we applied the event parameter scale (which assessed the controllability, perceived stressfulness and so forth) and the emotional scale (which assessed emotions such as nervousness, anger, sadness etc.). With respect to school-related stressors, which have been described rather homogeneous in both groups (see above), event parameters and emotional scale rarely revealed any difference between the clinical and the healthy group. In the emotional scale there was virtually no difference between both groups, in the event parameters only two differences emerged: The clinical group reported higher chronic stress and being more affected by the event. Thus, school-related stressors were perceived rather similarly in both groups.

With respect to conflict with parents, an event which has been described as more complex, many differences emerged between both groups. Clinical participants perceived this event as more stressful and unpleasant than healthy participants and reported more negative emotions (higher nervousness, sadness, depressed mood, anger and stressfulness) than the control group.

Subjective interpretation of causes of stress

In school-related stressors the causal attribution was balanced (internal causes: 40%; external causes: 29%; mixed 31%), whereas in conflicts with parents a higher proportion of the adolescents attributed to external causes (internal causes: 16%; external causes: 47%; mixed: 37%). Despite a higher proportion of the clinical participants to attribute school-related stressors to internal causes, no differences emerged.

Coping process

With respect to coping, three main categories have been distinguished: emotions, cognitions and actions. Both stressful events elicited a similarly high number of coping responses categorized as emotions (1), cognitions (2) and actions (3) in both groups. In addition, the basic ranking of frequent emotions was highly similar in both groups, for example with respect to problems with parents: rank 1: “disappointment with oneself”; rank 2: “stand up or displaying resistance”, and rank 3: “reciprocal misunderstanding”. Both groups thus gave similar emotional responses when dealing with problems with parents, balancing their contribution and their parent’s contribution to the conflict. Thus, there is no evidence that the clinical group practices a sort of splitting or externalizing.

No differences in the number of emotions and actions named as a way of dealing with the two stressors were found between the two groups; however, an interaction between Stressful situation x Health status emerged, $F(1, 73) = 8.83$, $p < .001$, with healthy adolescents reporting more cognitions in school-related stressors and clinical participants reporting more cognitions in family conflicts. The basic ranking of cognitions, however, was highly similar. The only difference was a more negative, fatalistic perception of the problem in the clinical group. With respect to actions, both groups named a similar number, but the actions of the clinical group were characterized by more ambivalence: Seeking support and passivity were equally balanced.

In summary, experienced emotions in both stressful events were highly similar, but there were more cognitive coping efforts in school-related stressors in the healthy group and more cognitive coping in family conflicts in the clinical group. The main differences, however, emerged in actions, where, based on the same number of actions mentioned, the clinical group named a more ambivalent pattern encompassing similar amounts of activity and passivity.
Evaluation of achieved effects

In school-related stressors, the clinical group significantly described more negative reactions on behalf of the mother and more passivity by the father than the healthy group. Both groups described the results of coping as being highly similar: 50% named positive results, 9% negative results, and 41% reported no change at all. With respect to conflict with parents, the clinical group reported more significant negative reactions by their fathers; again both groups did not differ in the result of coping (51% positive results, 8% negative results, 40% no change). Not many other persons were involved in the events, and their reactions were mixed both in the school-related stressors (50% indifferent, 9% critical, 25% supportive, 16% lack of interest) and conflicts with parents (56% indifferent, 7% critical, 26% supportive, 11% lack of interest).

Reappraisal

Being asked whether they still think about the two stressors, more adolescents said that they still ruminate about the conflicts with parents (54%), compared to school-related stressors (41%). No differences emerged between the clinical and the healthy group in this respect.

Not many age and gender differences emerged. There are somewhat more negative reactions of the parents reported from older than from younger participants. And females reported a higher number of factors contributing to conflicts with parents, compared to males.

Results from standardized questionnaires

The Problem Questionnaire analyzed the perceived stressfulness in two selected domains,
school and parents. ANOVAs involving Gender x Age x Health Status, conducted separately for both stressors, did not reveal significant gender effects and only one significant main effect for age: school-related problems were perceived as more stressful by older than younger adolescents, $F(1, 68) = 4.94, p < .05$. This suggests that getting bad marks was perceived particularly stressful by late adolescents. As expected, clinical participants did experience higher stress levels in both problem domains, problems with school, $F(1, 68) = 15.11, p < .001$, and problems with parents, $F(1, 66) = 7.23, p < .001$. Figure 1 and Figure 2 illustrate these differences. No differences were found, dependent on type of diagnosis.

The CASQ analyzed anticipatory coping in the domains school and parents. As can be seen in Figure 2 and Figure 3, the proportion of functional to dysfunctional coping is clearly distinguishable in both groups and across stressful situations. Clinical participants had higher proportions in withdrawal than the healthy group in both domains, but they also showed less active coping in school-related stressors.

This general picture can be further differentiated by exploring main and interaction effects. Gender x Age x Health Status ANOVAs did not reveal any main or interaction effects of active coping in the domain parents. With respect to internal coping, a main effect of gender, $F(1, 68) = 9.32, p = .00$, and a significant interaction Age x Gender, $F(1, 68) = 8.87, p < .001$, revealed discrepancies between boys and girls in the early adolescent group, but highly similar scores between males and females in the late adolescent group. In addition, a main effect of health status, $F(1, 68) = 14.01, p < .001$, illustrating higher scores in the clinical sample, and an interaction Gender x Health Status, $F(1, 68) = 6.31, p < .05$, emerged with higher scores in females as compared to males and, in particular strong differences between healthy males and males from the clinical group.

Regarding school-related stressors, two main effects of health status, in active coping, $F(1, 69) = 4.35, p < .05$, and in withdrawal, $F(1, 69) = 8.54, p < .001$, illustrated that adolescents from the clinical group are less active and more withdrawn in dealing with school-related stressors, compared to the non-conspicuous control group. With respect to internal coping, main effects of age, $F(1, 69) = 6.92, p < .001$, and gender, $F(1, 69) = 7.09, p < .001$, showed that younger participants have higher scores in internal coping than older participants and that females scored higher than males. Coping style did not differ, depending on diagnosis.

Discussion

In the past, several conceptualizations of coping have been developed using adolescent samples. Similar to findings with adults, the distinction between an active approach of tackling problems versus avoidance and withdrawal has been found in most studies of adolescents. This distinction is relevant with respect to adaptation. In a recent study, Herman-Stahl, Stemmler, and Petersen (1995) found that approach copers reported the fewest depressive symptoms, while avoidant copers reported the most. Participants who changed over time from approach to avoidant coping displayed a significant increase in depressive symptoms, whereas depression decreased in participants who switched from avoidant to approach coping over a one year period. Similarly, Seiffge-Krenke and Klessinger (2000) were able to establish long-term links between a more dysfunctional coping style and symptomatology. The present study confirms that clinically referred adolescents have higher rates in dysfunctional coping, irrespective of problem at hand. Both in school related stressors and in conflicts with parents, clinically referred adolescents had higher rates in withdrawal, a form of dysfunctional coping.

Given the short-term benefits of this coping style (Lazarus, 1983), it might be protective
against too much stress. It has, however, the consequence, that the problem is not solved at the moment. This may, in turn lead to long-term consequences like an overload with stress, which may further contribute to symptomatology in these adolescents (Seiffge-Krenke, 2001). Most of the results based on the standardized questionnaires to assess stress and coping can be considered as a validation of the results based on the Coping Process Interview. The clinical group was more highly stressed in both domains, school and parents, and also showed higher withdrawal in dealing with problems in these domains. Noteworthy is the clinical samples' low capacity of being active and seeking social support in dealing with school-related stressors.

Thus, the results won by means of the Problem Questionnaire validate the findings which were obtained by the Coping Process Interview as well as the results concerning event parameters and the results based on the emotional scale. In addition to this they confirm earlier results (Seiffge-Krenke, 1993, 1998), which reported increased levels of minor stress in clinical samples.

The Coping Process Interview revealed that school-related stressors and family conflicts are not structurally similar events. They varied in complexity, recency, persons involved, causes of the event as well as coping behavior. Generally, school-related stressors were perceived as more homogeneous and family related stressors were described as more complex. Differences between the two groups were found mostly in conflicts with parents, with more stress and more negative emotions experienced in the clinical group. Interestingly, in family conflicts, the concentration on mother-adolescent conflicts reported in the literature (Besevegis & Gian尼斯as, 1996; Seiffge-Krenke, 1999; Smetana et al., 1991) did not emerge in our study. Rather, both parents or parents and siblings contributed to all of these conflicts. In the clinical group, the symptomatology was additionally named as a factor contributing to both stressors. Noteworthy, too, is the more negative reaction of the parents in dealing with both stressors in the clinical
Figure 3
Coping with school-related stress in healthy and clinical referred adolescents.

groups. Also noteworthy is the fact that about 40% of the adolescents in both groups reported no change after coping with both events and an equally high amount of adolescents still think about the stressful events. This suggests that the stress perceived by both events has a certain chronicity, a result which may have health consequences in the long term in both groups.

The appraisal of stressful events and the way of dealing with these stressors was highly similar in adolescents diagnosed as having internalizing or externalizing syndromes, mixed disorders or psychosomatic diseases. The tendency for several emotional and behavioral problems to cluster or co-occur in adolescents is now widely recognized (Kovacs, 1990; Maser & Cloninger, 1990). Although these results require replication on a larger sample, they deserve some attention, because they suggest that similar interventions could be designed for clinical groups differing in diagnosis. Such interventions need to offer help in establishing a more active mode of coping in order to break through the vicious circle of high stress, high withdrawal and increasing symptomatology. Stimulating self-helping capacity can be a further way of contributing to a positive adaptation. As the results in conflicts with parents illustrate, the clinical sample is more active in this domain, compared to school-related stressors. This can be a good starting point for prevention and intervention, too.

Further studies on a larger sample should also focus more on age and gender differences, also including the age of 15. It seemed to represent a turning point in the use of certain coping strategies and in the way relationships are dealt with and conflicts are solved: A higher reflection about possible solutions leads to a richer inner picture of coping options, social resources are increasingly used, compromising and giving in as well as stand up and displaying resistance become more and more frequent, based on increasing cognitive and social maturity. In addition, cross-cultural comparisons may offer a broader framework for the general understanding of stress and coping in adolescence. The degree of stress inherent in a situation might be perceived differently by
different ethnic and social groups. Also, different cultural standards may exist between cultures that prescribe the "adequate" way of coping with stressors. For example, conflicts with parents and school-related stressors may be perceived differently in different cultures, and the norms for being active or using social support may vary. Thus, a cross-cultural perspective may add to our knowledge of how clinically referred and normative samples may deal with these normative stressors, depending on cultural prescriptions.

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