19.
The Role of Parent and Peer Contacts for Adolescents' State of Health

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1. Parents, Peers, and Developmental Tasks

Behavior during adolescence is woven into various social networks formed by family, peer group, school, and other socialization units. These networks are part of broader sociocultural and socioeconomic contexts that are shaped by historical change. An investigation into behavior modes during adolescence must, therefore, be based on the concept of interaction between the individual, his/her situational environment, and the surrounding sociocultural structure.

In every society, specific behavior patterns are expected, and certain opportunities for social participation are provided at different stages during an individual's life, for example, during adolescence. Here, participation opportunities imply access to specific social roles or role segments. In seizing these opportunities, social responsibility must also be assumed. The definition of social behavior patterns and participation opportunities for adolescents in Western industrial countries is characterized by the fact that this period is not regarded as an independent but as a transitional stage between childhood and adulthood. From the sociological point of view, the main social function of adolescence is to gradually achieve independence and to acquire the values, standards, skills, and behavior possibilities that are the prerequisites for the successful acquisition of religious, family, partnership, and sexual roles in adulthood.

From the point of view of socialization theory, the social function of adolescence is to master developmental tasks and to overcome relationship

crises. Among other things, the adolescent has to face the following, closely linked demands and to acquire the following skills:

1. acceptance of physical changes, whereby he/she must learn to control sexual drive and to channel it into a socially acceptable heterosexual partnership;

2. achievement of independence from parents and moulding of one's own social behavior, both in economic and consumption fields;

3. establishment of social contacts with peers, through which the search for self-confidence and self-realization takes place;

4. development of a personal set of values and standards, ethical and political awareness, and the coordination of this with personal behavior;

5. development of intellectual ability and assumption of responsibility for planning one's path through school; and

6. preparation to select and enter a profession, and development of plans for the future in occupational and social terms.

The successful mastery of these developmental tasks and the solving of accompanying relationship problems are the prerequisites for the establishment of an individual and social identity. The development of an individual personality means the ability to decide and act independently in one's environment, to become integrated into a sound, social relationship structure and, at the same time, to come to regard oneself as distinct and unique. In adolescence, the need to acquire these characteristics, which are normally associated with adulthood, is very great (Rutter, 1980; Moriarty & Toussieng, 1976).

In present-day industrial societies, it is more difficult for adolescents to master developmental tasks because the social participation opportunities open to them are not clearly defined. In some cases the developmental tasks that have already been mastered cannot be translated into competent action because the adolescents are denied the corresponding participation opportunities (Johnson, 1986; Newcomb, Huba, & Benteler, 1981).

Viewed historically, particularly since the middle of the last century, schooling and training have been extended considerably, which means that all adolescents are kept in a state of relative dependence until they come of age at 18; in many cases this period is even longer. As a result, entry into professional life and

establishing a family are postponed for a long time. Despite this, social and political rights are granted very early in some respects. Adolescents come of age and are entitled to vote at 18. At an even earlier age they may participate in decision-making processes in school and in institutions of vocational training.

A major change in the social network into which adolescents are integrated is brought about by the gradual separation from the parental home. Usually around the age of 12, the importance of parents as "significant others" begins to lessen. The relationship between adolescents and their parents gradually becomes more and more strained, and the bond between them is increasingly challenged by peer friends.

A democratic educational style, in which parents explain their rules and expectations, helps adolescents to acquire a responsible attitude to independence. Adolescents are given an opportunity to become independent if parents communicate with their offspring in an appropriate manner. As a rule, parents of this kind exemplify a reasonable form of independence and autonomy within the framework of a democratic order. In contrast, adolescents with autocratic or indifferent parents are denied the example of responsible and cooperative independence. From their parents they receive little, if any, encouragement to identify with adults, and they have too few age-appropriate opportunities to gather experience in the gradual acquisition of responsible autonomy (Kreppner, 1980).

The educationally aware family continues to exert a considerable, positive influence during the adolescent's socialization process, particularly when it comes to mastering school tasks, planning school and occupational channels, developing a set of values and standards, establishing the gender role and, in a basic way, engaging in the overall process of acquiring skills. A disturbed family may correspondingly trigger off serious developmental problems.

Peer groups assume a socializing function at a biographically early stage. Most peer groups are leisure-oriented associations. Their main characteristic is that they grant their members full participation within the group. They also enable them to gain experience in what is perceived to be a relevant social milieu, something that is denied them in other areas of social behavior.

Most peer groups organize themselves outside of the education and training system and in no way see themselves as being initiated, organized, or controlled by adults. Two characteristics common to these groups are subcultural opposition to the socially prevailing "overall culture" and the development of a group subculture that extends to attitudes, appearance, and

behavior. Within the groups there is strong pressure to conform. Peer groups provide adolescents with opportunities for self-realization, alternatives to the routine of everyday life in the home and in school, as well as social recognition, security, and solidarity mainly by offering satisfying social and sexual contacts (Biddle, Bank, & Marlin, 1980).

The Concept of the "Social Network"

Parents and peers thus form central parts of the "social network" of adolescents and are extremely important for a successful process of development and socialization. The central idea of research into social networks can be expressed as follows: The more a person is integrated into a network of social relationships, and the more he/she is able to cope with unfavorable living conditions, critical life events, and long-lasting stressful situations, the less likely it is that symptoms of stress such as social, psychological, and physical disorders will emerge. The social network of relationships is seen to have a supportive function in a person's attempts to cope with various kinds of problem (Nestmann, 1988).

In an analogy to biological systems of protection and immunity, the social network is often referred to as a "social immune system." Cassel (1975), for example, regards biologically protective factors as being the process by which the organism adapts to changes in the environment. He views psychosocial protective factors as being the type and strength of group support to which an individual has access. The availability of members of a primary group provides for the satisfaction of those needs for integration and a sense of belonging that are increasingly being jeopardized under the conditions of present-day society, and whose continuing neglect can contribute to impairments of the socioemotional balance and the nervous system and may lead to the emergence of psychosomatic illnesses (Caplan, 1974).

A social network can be viewed as the fabric of social relationships in which an individual is embedded. Such a network consists of the sum of a person's contacts to other persons and can be described and analyzed according to various criteria. The entire structure, quality, and function of the relationships in a network determine its potential for support.

In this paper, we will examine the importance of parents and peers for the make-up of the support network in adolescence and the related state of health and well-being.

The Concept of Health

Within the last ten years, interdisciplinary research has brought forth a broad concept of health. In contrast to traditional medical approaches that are centered around physical well-being, in this concept, well-being is embedded into all dimensions of daily life. Here, health is described as the state of physical, psychological, and social well-being that a person experiences when physical, psychological, and social development is in harmony with his/her possibilities, goals, and prevailing living conditions.

In this sense, health consists of physical, psychological, and social components that influence each other reciprocally. It is a state of equilibrium that must be continually reestablished in each stage of life. Health is seen as a part of individual development, as a process that can only take place when an individual is flexible and goal-oriented in attempting to achieve an optimal state of balance between the internal and external demands and expectations that exist in everyday life situations. Health can only be maintained when a person is able to establish constructive social relationships, is socially integrated, able to adapt his/her individual life-style to the vicissitudes of the environment, and to thereby ensure autonomy and act in accordance with the prevailing biological, physiological, and physical capabilities (Hurrelmann, 1989).

This definition can be applied to persons in various stages of the life course, to adolescents as well as to adults and the elderly. The various stages of the life course entail different developmental tasks, which demand appropriate coping strategies. The individual must cope with social, psychological, and physical expectations, demands, and stressors, all of which are specific to each stage of life. The coping capacity of an individual consists of *personal* and *social* resources. The term "personal resources" refers to the individual style of coping and to the capacity for action in coping with situations in daily life. The term "social resources" refers to the various sources of support within the social environment and the network of social relationships that an individual can mobilize when coping with stressful situations. Personal and social resources affect each other reciprocally and thereby form the individual's capacity for coping with life (Gerhardt, 1979).

The capacity to deal with emotional stress, the ability to seek support and help from other persons, and a stable sense of self-esteem are all prerequisites for successfully dealing with internal and external stress factors. Each individual has access to a particular coping style, to habitual and consistent patterns of behavior that are aimed at mastering internal and environmental demands and that neutralize the conflicts arising from such demands. These styles of coping

have a substantial effect on the individual's psychological and social well-being and health (Dohrenwend & Dohrenwend, 1974; Lazarus & Launier, 1978). However, the limits on the effectivity of personal resources are to be found where stress results from sociostructural conditions that cannot be influenced by the individual. Whether or not the social, psychological, and physical adaptability is overtaxed, and how such strain affects the further development of the person, is dependent to an extent on the support that he/she receives from the social environment and on the structure of the social network into which he/she is integrated.

Research Questions

Inasmuch as adolescent behavior is oriented toward the norms and values of parents, the family of origin must be considered as the most influential reference group. It is the main institution of socialization in establishing personal and social identity and in conveying basic social and cultural behavioral competencies, norms, values, goals, and demands. Parents represent a stable social resource in terms of material and nonmaterial support, for example, in times of ill-health (Biddle, Bank, & Marlin, 1980).

However, as reference persons for adolescents, parents are regarded with ambivalence. The process of separation from the family of origin is one of the main developmental tasks; it is accompanied by increasing independence, external orientation, and membership in other social groups, and can thus be a source of conflict with parents (Hurrelmann & Engel, 1989). Furthermore, it should be kept in mind that, in respect to recruitment of its members, families are an "involuntary community", from which adolescents cannot easily withdraw should conflicts arise due to financial or emotional dependency.

The adolescents' increasing orientation toward peers (friends, acquaintances) has a compensatory effect. With the peer orientation, the one-sided dependency on a single group – in this case, the family of origin – is neutralized, and the demands of the new reference group correspond more closely to the adolescent's own views. In contrast to the parent-adolescent relationship, the relationship to friends is voluntary and self-determined. Serious conflicts and differences of opinion within friendship can be dealt with by terminating or redefining the relationship.

In previous studies, we found evidence showing that adolescents react with symptoms of psychosomatic complaints to risk constellations in their living conditions. The most important "risk factors" that led to these symptoms were

(a) parents' exaggerated expectations of school performance, (b) strong subjective strain due to academic demands, and (c) failure in school. The occurence of one or more of these risk factors correlates with a high probability that symptoms of psychosomatic complaints will emerge.

Symptoms of psychosomatic and emotional "stress" are to be expected above all in the group of adolescents who find themselves in a difficult situation with regard to academic performance and whose parents have high expectations in this respect. Pressure from parents is very high: In West Germany, only 10% of the parents interviewed were prepared to accept the lowest level of school leaving certificate, whereas nine-tenths of the parents were not prepared to accept less than a qualified intermediate or high-school leaving certificate, which today can be achieved by only two-thirds of each age group. If it becomes obvious that the parents' expectations cannot be met, many of the adolescents evidently react with psychosocial and psychosomatic symptoms, often accompanied by low self-esteem (Hurrelmann, Engel, Holler, & Nordlohne, 1988).

In the following analysis, we attempt to estimate the extent to which the integration into the informal social networks of the family and of the peer group serves as a potential for social support. Additionally, we attempt to examine the relationship between these forms of social support and the emergence of stress reactions that are manifest as psychosomatic disorders.

2. Empirical Design

Sample

The results of the study presented here relate to the first and second wave of a longitudinal study of 13- to 16-year-old students in North Rhine-Westphalia that began in 1986.

Probability samples were taken within three selected regions. Based on federal statistics in the state of North Rhine-Westphalia, regions were chosen according to structural aspects (an urban center, a middle-sized town, and a rural area). Subsequently, schools and school classes (7th- to 9th-grade) in these regions were selected at random.

Under the guidance of a team member, a standardized questionnaire was administered to each class twice with an interval of one year. Of the 1,700 students initially interviewed in 1986, 85% could be recontacted in 1987.

Measuring Instruments

1. Within the framework of a comprehensive concept of stress, the dependent variable "impairments to health/psychosomatic disorders" was examined with a "symptoms checklist." This scale is composed of 24 individual items that are used to measure psychophysiological symptoms and are based on a scale by Gurin, Veroff, and Feld (1960).

   The following question was asked: "How often have you experienced the following symptoms within the last 12 months?" The frequency of symptoms was entered on a 4-point-scale with the poles *frequently* (4) and *never* (1). This kind of checklist is suitable for written-response questionnaires, as adolescents can fill them out completely and without assistance.

   A comparative structural analysis of symptoms revealed a three-factor structure (Hurrelmann, Engel, Holler, & Nordlohne, 1988; Hurrelmann, Holler, & Nordlohne, 1988). The individual items of the first two factors revealed a great similarity to the psychosomatic complaints referred to in the literature (e.g., Bräutigam & Christian, 1986).

   In our analysis, the remaining 12 items of the first two factors were included in a summary index on the basis of the psychosomatic complaints experienced "frequently" or "occasionally." In the tables, the analysis is based on a dichotomy of the index, using the median as cutting point.

2. The variable "state of health" was measured by a self-estimate of health based on a 5-point scale, ranging from *very good* (5) to *bad* (1). The following question was asked: "How would you describe your present state of health?"

3. The variable "social conflicts with parents" was operationalized with six items. The question asked was as follows: "Within the last three months, did differences of opinion with parents occur occasionally or frequently ... ?" This question was asked in respect to the following items: (a) " ... because of academic performance," (b) " ... because of your being untidy," (c) " ... because you would not help at home," (d) " ... because of your appearance/hairstyle," (e) " ... because you smoked," and (f) " ... because you wanted to go out in the evening." A factor analysis of all six items revealed a two-factor structure (Hurrelmann, Engel, Holler, & Nordlohne, 1988). For the items a, b, and c – which formed the first factor – the

responses to the "frequent" and "occasional" differences of opinion were gathered together in a summary index.

4. The support potential of the adolescents' personal networks was estimated by presenting the following hypothetical situation, thereby establishing a behavioral association: "You are often tired and cannot concentrate at school. For some time now you have had difficulty in keeping up with the class. You would like to know what is the matter with yourself and to whom you can turn. Who is a likely candidate for giving assistance?" A 5-point scale was used with the poles *completely unacceptable* (-2) and *very likely* (+2). This question was presented separately for a total of 16 reference persons or institutions. In addition, the adolescents were asked which of these 16 persons and institutions they had already consulted in such a case. The following analysis refers only to the questions relating to the adolescents' mothers, fathers, and friends.

5. The adolescents' self-assessments of their social position within the peer group were represented in a graph based on the five-stage scale, ranging from *in the center* (1) to *at the periphery* (5). The following questions were asked: "Who initiates activities?" and "Who is at the center of such activities?" The adolescents also evaluated their friendships (friends being defined as a subgroup of the peer group). The following differentiation between friends and peers corresponds to the categorizations used by the adolescents.

6. The variable "experience of academic failure" refers to academic performance and includes responses indicating such events as repetition of a class because of bad marks on one or more occasions. This was indicated as (1) *no*, never having occurred or (2) *yes*, having occurred at least once.

3. *Results*

Health Complaints

Adolescents' health was measured by self-reports of psychosomatic health complaints. *Table 1* shows the frequency of complaints of the summary index based on the 12 individual symptoms, which are grouped together according to their factor loadings. The two individual complaints mentioned most frequently were "headaches" and "nervousness/restlessness," both of which belong to one of the factors. The first factor "vegetative symptoms" included general

exhaustion, trembling hands, sweating attacks, nervousness/restlessness, palpitations, lack of concentration, and insomnia. The second factor "physiological symptoms" consisted of "organ-related" complaints, such as nausea, stomach pains, headache, dizziness, lack of appetite, and respiratory problems.

In respect to these 12 possible complaints, only 4% of the adolescents questioned in the autumn of 1986 could be classified as completely symptom-free (2,4% of the girls, 4,6% of the boys). Occasional complaints (infrequent or seldom) were reported very often (96%). A total of 8 from 10 adolescents reported having at least 1 of the 12 possible complaints occasionally or frequently (87% of the girls, 73% of the boys). One third of the boys (33%) and 55% of the girls reported having had at least one complaint. Each of the 12 complaints was reported significantly more frequently by the girls than by the boys. Thus, the variable "frequency of psychosomatic complaints" had a strong gender-specific component.

Table 1: Frequency of Self-Reported Complaints in Percentages (First Wave 1986, N = 1,717)

	Frequency		
Symptom	Frequent	Occasional	Seldom/Never
Factor 1: "Vegetative syndrome"			
Trembling hands	8	16	77
Nervousness/restlessness	16	25	59
Lack of concentration	9	27	65
Palpitations	8	16	76
Sweating attacks	4	11	85
Insomnia	9	16	75
Factor 2: "Physiological syndrome"			
Nausea	7	20	74
Stomach pains	9	21	70
Dizziness	12	18	71
Headache	20	28	51
Lack of appetite	6	16	78
Breathing problems	3	6	91

Table 2 shows the probability rates that the adolescents questioned belonged to one of the groups who reported many versus few complaints at one or both questioning times. Of the adolescents questioned, approximately 30% (p =

.301) reported above-average levels (frequently and occasionally) of symptoms at both timepoints. The probability of belonging to this group was approximately twice as high for girls (p = .404) as for boys (p = .200).

When examining the groups that reported many complaints either in 1986 (p = .099) or in 1987 (p = .170), it can be seen that approximately 27% (p = .099 + .170) reported above-average levels of symptoms. The probability of reporting many complaints was greater for girls than for boys with regard to one or both surveys.

Table 2: Frequency of Psychosomatic Complaints at the First and Second Timepoints (Total Probability)

	Psychosomatic complaints 1986					
Psychosomatic complaints 1987	Total		Boys		Girls	
	Few complaints	Many complaints	Few complaints	Many complaints	Few complaints	Many complaints
Few complaints	.431	.099	.545	.097	.314	.101
Many complaints	.170	.301	.158	.200	.182	.404
p = 1.0 = 100%		1.0		1.0		1.0
n		1450		734		716

Assessment of the State of Health

Self-assessment of the state of health is a further dimension of physical well-being. Although 96% of the adolescents reported at least occasional symptoms, the majority of adolescents described their state of health as "good." The self-assessments of health were as follows: 25% described their state of health as "very good," 41% as "good," and 25% as "satisfactory." A small minority of 8% described their health as "bad" or "less than good."

The female students questioned assessed themselves as less healthy than the male students, with 34% of the males but only 16% of the females belonging to the 25% of the total group who described their health as "very good." The description "good" was used by 42% of the males and 40% of the females.

Table 3 shows the relationship between the self-assessment of health and the reports of above-average levels of symptoms.

Table 3: Relationship Between Self-Assessment of Health and Above-Average Levels of Psychosomatic Complaints for Both Sexes (N = 1,678)

	Above average levels of symptoms in 1986		
State of health in 1986	Boys	Girls	Total
Bad, less than good, satisfactory	58% (205)	73% (364)	67% (569)
Good	27% (364)	43% (323)	34% (687)
Very good	13% (291)	21% (131)	15% (422)

(The difference between the individual cells and 100% gives the percentage with few symptoms; the basis for the percentages is given in brackets).

The reported symptoms corresponded to the adolescents' self-assessments of health (Gamma = -.64, p = .00). The less symptoms reported, the better the self-assessment of health. Even without knowing whether or not the adolescents' assessments would correspond to a medical diagnosis, we must view occasional and frequent symptoms as being a subjective dimension of physical health and well-being. The frequency of symptoms obviously impeded physical well-being; for example, the high levels of symptoms reported by the female students were reflected in reduced feelings of well-being.

Social Contacts and Conflicts with Parents

In our study, both male and female adolescents described their relationships to parents as being satisfactory. However, they also reported a certain amount of conflict. Differences of opinion and disputes revolved around various themes and could be caused by various factors.

In the following analysis, in addition to conflicts with parents over academic performance, two more general areas of conflict are examined. The frequency of causes of conflict was as follows: "Your untidiness" (48%), "school performance" (36%), and "because you refuse to help at home" (35%). The sources of conflict differed only slightly in respect to gender, and gender

differences were no longer apparent when the levels of conflict over all three areas were summarized.

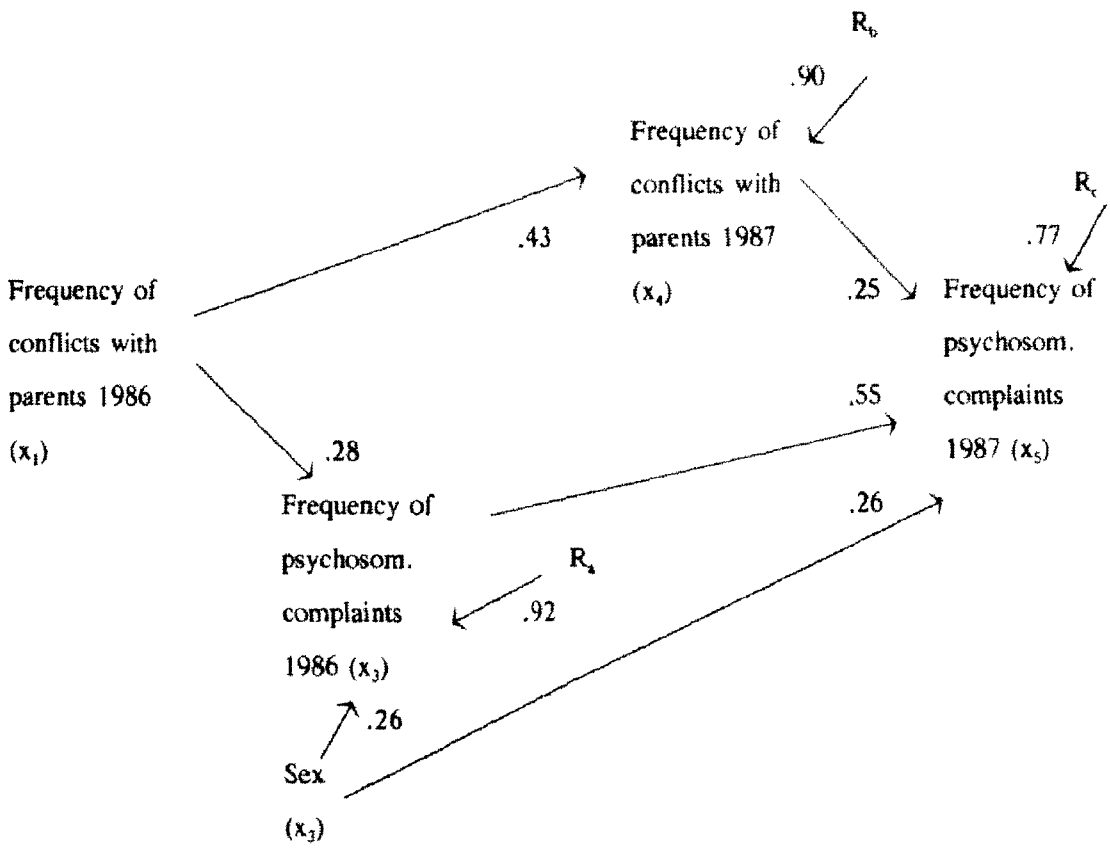
Is the frequency of conflicts with parents related to the levels of psychosomatic complaints among adolescents? The Path Analysis Model (Diagram 1) was used for the longitudinal study over two waves, and the variance accounted for was $R^2 = .40$. The study shows a direct relationship between the frequency of conflicts with parents and the frequency of psychosomatic complaints: Frequent conflicts with parents in 1986 (x_1) corresponded to an increase in the levels of symptoms in 1986 (x_3). The same relationship could be seen for 1987. There was, however no direct path connecting conflicts in 1986 and levels of symptoms in 1987. There were indirect paths leading from the frequency of conflicts at the first timepoint in 1986 (x_1) to the dependent variables "frequency of symptoms" at the second timepoint in 1987 (x_5). Obviously, these effects ran over already manifest symptoms and over recurring or continuous conflicts. The tabular analysis (not shown here) confirmed that the frequency of symptoms was increased at the second point of questioning under the following conditions: when (a) acute conflicts arose in 1987; (b) acute conflicts were added to the conflicts from 1986; and (c) the frequency of symptoms in 1986 was already high.

Provision was made for the control variable "gender," because – as described above – girls showed psychosomatic reactions more frequently than boys. No differences were found concerning sex roles in respect to the frequency of conflict with parents and its effect on levels of psychosomatic symptoms. However, compared to male adolescents, female adolescents reacted more strongly with psychosomatic complaints to such conflicts. The structure of the model remained unchanged when the calculations for females and males were carried out separately.

As our data show, the social and emotional climate in the family are important moderating factors in the process leading to symptoms of stress. Family ties during adolescence are very complex: On the one hand, economic dependency on parents has increased in comparison to the parents' own generation because of the long time spent in school and vocational training. On the other hand, due to early opportunities for independent decision-making in the peer group and in the areas of leisure and consumption, social and emotional relations with parents are no longer as close as they were in the past. One of the factors leading to the emergence of symptoms of psychosocial stress can be expected when there is conflict with parents over school performance and educational aspirations. Other factors touch upon emotional tensions with parents; for example, when adolescents feel discontented and not fully accepted by their parents with respect to their individual life-styles. Adolescents' relations to their

parents contain a strong emotional element, but at the same time they are also tied up with parent's role expectations directed toward the children's academic achievements and prospective status aspirations. This is a potential source of tension, as our data demonstrate.

The manifestations of "stress" can be observed at many levels of the organism, including psychological and emotional functioning, the nervous system, general physical health, the functioning of various organs, as well as the endocrine and the immunological systems (Siddique & D'Arcey, 1984; Pearlin, 1987; Pearlin & Lieberman, 1979). We assume that disorders at one level can lead to disorders at another level and have a reciprocal effect.



Structural equations:

$x_3 = b_{31}\, x_1 + b_{21}\, x_2 + b_{3a}\, R_a$

$x_4 = b_{41}\, x_1 + b_{4b}\, R_b$

$x_5 = b_{52}\, x_2 + b_{53}\, x_3 + b_{54}\, x_4 + b_{5c}\, R_c$

all b's are standardized path coefficiants; x_2 has the values (0) for boys, (1) for girls

Figure 1: Relationship between frequency of conflicts with parents and frequency of psychosomatic complaints.

Adolescents' Social Attachment to Peers

The adolescents questioned described their relationships to their best friends (of the same sex) as being very positive: 95% agreed with the statement "You are always willing to help each other;" 89% agreed that they "Could talk about everything;" and 87% disagreed with the statement "We often have a reason to be annoyed or angry with each other." The responses to these items confirmed that adolescents' relationships to peers were defined as friendships when they were judged to be basically positive.

As our study showed, there were low correlations between health complaints and the position in the peer group. The social attachment to the peer group was measured by using a self-assessment scale on which the adolescents could estimate their position. Approximately 25% estimated their position at or near "the center," whereas 50% judged their position to be at the middle of the scale (less than "center stage"). A further 25% assessed their position to be at the periphery of the group. There were no gender-related differences in self-assessments.

Our study also showed a slightly different finding for boys and girls in respect to the relationship between the social position in the group and the frequency of psychosomatic complaints (Table 4): A significant positive correlation was found between the frequency of complaints among boys and their position toward the periphery of the group. Male adolescents who assessed their position to be close to or at the center of the group showed the smallest proportion of above-average levels of symptoms (24%). Those adolescents who judged their position to be at the periphery showed the highest proportion (35%). In the female adolescent group, the smallest proportion of psychosomatic symptoms (50%) was found among those persons who assessed themselves as being in a middling position. Likewise, the largest proportion of symptoms (56%) was found in the group who regarded themselves as being more toward the periphery. The significant correlation found between social position and frequency of symptoms in the entire group (males and females) did not exist in the female group.

Table 4: Position in the Peer Group and the Frequency of Psychosomatic Complaints (Percentages) (N = 1,689)

	Percentage of above-average number of complaints		
Position in the peer group	Boys	Girls	Total
In or near the center	24% (226)	53% (191)	37% (417)
Midrange	29% (414)	50% (435)	40% (849)
More toward the periphery	35% (224)	56% (199)	45% (423)

(The difference between the individual cells and 100% is the proportion with few symptoms; the percentage basis is given in brackets).

Parents and Friends as Relevant Persons in the Adolescents' Network Orientation

Finally, we raise the question to what extent adolescents perceive parents and friends to be approachable when problems occur, and whether such persons can be a potential source of help. Table 5 shows the frequency with which adolescents regarded parents and friends as being approachable.

Table 5: Approachability of Parents and Male/Female Friends as Viewed by Adolescents

If you have a school-related problem, to whom could you turn?

	Completely unacceptable	Doubtful, unclear	Fairly or completely sure	N
Mother	6%	19%	75%	(1,666)
Father	14%	31%	55%	(1,614)
Female friend	17%	27%	56%	(1,607)
Male friend	20%	35%	45%	(1,595)

The table shows that, despite the conflicts inherent in their relationship to parents, most adolescents were able to discuss school-related problems with them. Of the adolescents questioned in 1986, 75% would consult their mother and 55% their father when faced with this kind of problem. Adolescents thus perceived their parents, particularly the mother, as a potential support.

Thus, our data indicated that having frequent conflicts with parents does not prevent adolescents from perceiving their parents as a potential for support. The correlation between frequency of conflicts and approachability was only minimal (Gamma = -.18, p = .00).

It is noticable that mothers were more frequently chosen than fathers, and female friends more than male friends. These data correspond to traditional expectations of sex roles, in that socially "sensitive" behavior, including readiness to help, is associated with the female sex.

The frequency distribution of above-average levels of psychosomatic symptoms showed that an increasing tendency to consult parents correlated with decreases in the proportion of adolescents with above-average levels of psychosomatic complaints. This proportion was 53% in the group in which consulting the mothers was completely unacceptable (52% in respect to the fathers). For the group that regarded the mother as somone to talk with, the figure was 39% (33% in respect to the father).

The relationship was the same in the case of the father, although the proportion of adolescents who would consult the father was distinctly lower (55%) than for the mother.

Whereas the approachability of the parents indicated less psychosomatic stress, an opposite tendency was found for the relationship to peers. Those adolescents who reported that they were "fairly or completely certain" that they would approach a male/female friend showed a higher proportion of psychosomatic complaints (44%/43%) than those who regarded this possibility as being "unacceptable" (female: 36%; male: 37%).

These questions concerning network orientation refer to a hypothetical situation dealing with school-related problems. Thus, we must also examine the relationship between the approachability of parents and the levels of

psychosomatic symptoms (a) when the situation of increased problems is real, and (b) when the help offered by others is actually accepted.

Network Orientation When Increased Problems are Manifest

An increase in problems that lead to stress was particularly evident when students experience failure in academic achievement; that is, for example, when graduation to the next higher class was endangered or when a class had to be repeated. The increased risk of psychosomatic stress reactions in such situations has already been referred to. When comparing groups experiencing problems in school with those not experiencing these problems, the relationship shown above was essentially maintained (see Table 6).

Even within the failure group, which showed higher frequencies of complaints in comparison to the nonfailure group, a correlation between the approachability of *parents* and a relatively small proportion of high levels of symptoms was apparent. This relationship was only partially true in respect to the approachability of the mothers: Whereas the largest part of the frequency of psychosomatic complaints (53%) appeared (as expected) in the group in which the possibility of consulting the mother was "unacceptable," the relatively smallest proportion (41%) was in the group that regarded such a consultation as being "doubtful." Students with problems showed a significant increase in the frequency of complaints only when consulting the mother was regarded as unacceptable.

However, in respect to the failure group, this correlation did not apply to the approachability of male and female friends. Here, the relationships showed a reverse pattern: In the failure group as well as in the nonfailure group, the frequencies of psychosomatic complaints increased with the nonapproachability of friends. This result makes it clear that parents are the typical reference persons to turn to when difficulties arise in school.

Table 6: Psychosomatic Complaints and Willingness to Approach Others in Adolescents With and Without Problems

	Percentage of above-average number of complaints			
	Partner			
	Mother		Father	
Experience of academic failure	Yes	No	Yes	No
The possibility that you would approach this person is ...				
Completely unacceptable	54% (43)	53% (60)	54% (97)	51% (131)
Unclear	43% (131)	41% (180)	47% (268)	47% (238)
Fairly or completely sure	35% (795)	45% (457)	29% (579)	39% (301)
Total	37% (969)	45% (697)	37% (944)	44% (670)

	Partner			
	Female friend		Male friend	
Experience of academic failure	Yes	No	Yes	No
The possibility that you would approach this person is ...				
Completely unaccaptable	34% (164)	39% (112)	35% (202)	41% (113)
Unclear	30% (253)	41% (177)	34% (324)	43% (235)
Fairly or completely sure	40% (521)	50% (380)	39% (392)	49% (329)
Total	37% (938)	46% (669)	36% (918)	45% (677)

(The difference between the individual cells and 100% represents the proportion of persons with few symptoms; the basis for the percentages is given in brackets.)

Social Support and Psychosomatic Symptoms

Perceiving parents as being approachable can be regarded as a factor that reduces stress. Help that is actually solicited can, however, contain negative aspects of social support, regardless of its effectiveness in assisting with individual problems. Table 7 shows the proportion of adolescents with above-average levels of symptoms who were "completely or fairly certain" that they would consult parents or male/female friends. The columns differentiate between those who had already solicited help and those who had not.

When compared with the group of persons who had not already asked a particular person for help, the group of persons who had already done so showed more above-average levels of symptoms.

Table 7: Network Orientation of Adolescents and Frequency of Psychosomatic Complaints. Percentage of Above Average Levels of Symptoms Among Adolescents Who Would "Certainly or Fairly Certainly" Approach One of the Following Persons:

When the adolescents ...	Mother	Father	Male friend	Female friend
Had already approached the person	44% (704)	38% (398)	54% (407)	53% (279)
Had not already approached the person	32% (523)	28% (466)	36% (480)	38% (435)
Total	39% (1.227)	33% (864)	44% (887)	44% (714)

(The difference between the individual cells and 100% represents the proportion of persons with few symptoms; the percentage basis is given in brackets)

Increased psychosomatic stress was shown more clearly in the group of adolescents who had already explicitly asked a male or female friend for help when compared with the group that had consulted one or both parents. The percentage differences were 18% for a female friend and 15% for a male friend. Psychosomatic stress occured among adolescents above all when they felt that they *could not* approach their parents, and when they already had had to approach male/female friends.

These findings correspond to the concept of "social resources" inasmuch as the expectation that one will receive parental support correlates with less

psychosomatic complaints, so that parents function as the potentially strongest "social resources."

4. *Interpretation and Summary*

The findings presented here can be summarized as follows: In respect to adolescents' health and well-being, a good personal network is characterized by parents being perceived as a potential source of support. The actual solicitation of help indicates that adolescents experience problems that are so profound that they urgently need help.

A "good" network that is able to prevent impairments to health can therefore be described as follows: (1) Parents are perceived as being approachable for assistance; (2) stress-causing problems can be prevented, thereby making it unnecessary to explicitly seek help; and (3) when problems arise, the network provides support, even in situations when help is not explicitly sought.

Whereas adolescents describe their friendships in such a way that "they would assist each other at all times," demands for assistance do not seem to be only a matter of course. The act of seeking help also signals that one is in need of, or dependent on, others. Within relationships of equal status (or rank), such as in adolescent groups of friends, those who seek help risk losing their position of equality and thereby contribute to a change in the power structures within the group that is effectively to their own disadvantage.

The effects of the social network on adolescents' health impairments is important on two levels: (1) The social network as such, which adolescents are bound into, produces problems that can lead to psychosomatic complaints. (2) It acts as a potential support when reference persons, especially parents, are available who are perceived by the adolescents as being approachable.

Problems and conflicts can arise from being integrated in the social structures. At the same time, the social network offers support and opportunities to reduce problems.

Consequently, the aim of all intervention measures must be to promote and strengthen both personal and social resources that can be utilized for coping with difficult life events or continuous stress (Jessor & Jessor, 1977; Silbereisen, Eyferth, & Rudinger, 1986). All measures that improve either the competence of a person or the social living conditions, both material and

nonmaterial, are of fundamental importance for the entire process of successful or unsuccessful socialization. The most effective means of intervention are legislative and political measures in the fields of education, the family, youth, health, work, and the economic situation.

The findings of our study indicate that we should pay attention to gender differences. The study shows evidence that the importance of "social resources" differs for males and females in respect to the occurrence and incidence of health complaints. As a result of their socialization, female adolescents evidently show a tendency to deal with tension and conflict with an internal, intrapsychic form of coping. Psychological and psychiatric studies indicate that, from early childhood onward, girls show higher levels of internally directed and withdrawal-type symptoms, such as neurotic behavior, anxiety, depression, and psychosomatic complaints. Boys on the other hand, report more external, "acting-out," conflict-oriented disorders such as aggressive behavior, drug abuse, and criminal acts (Kessler & McLeod, 1984; Gove, 1985; Dohrenwend & Dohrenwend, 1981).

Presumably, each sex has specific and typical styles of expressing social and psychological stress, that, from the point of view of personality dynamics, could be functionally equivalent. Whereas the male style is directed more toward "acting-out" behavior, the female style is more internally directed (Hagemann-White, 1984).

With reference to the possibilities of help and support, both individual "promotion of competence" and social "network support" must be considered. Interventions can only be successful when it is possible to reduce tension and the lack of balance between biological behavior potential and individual behavior competence on the one hand, and demands on behavior from the social environment on the other (Hurrelmann, 1987).

Promotion of individual competence and social resources must be implemented together; well-being, satisfactory personality development, and health are dependent on social, biological, and psychological factors, as well as socioeconomic and environmental living conditions: Genetic disposition, habituated psychological components, immediate desires and interests, and the characteristic style of working and spending leisure time are also important factors. Being "health promoting," all of these factors must be included in a large-scale, structural context. In this sense, health promotion is the entirety of socioeconomic, cultural, and biomedical interventions that are directed toward increasing and stabilizing a sense of well-being, competence in work, achievement, and social contacts.

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