

1. PERSONALITY IN ADOLESCENCE

In the present study the attitude of young adolescents toward legal drugs is investigated. In particular, we studied whether their attitude toward drugs could be predicted on the basis of personality characteristics. The study was performed in a longitudinally designed social competences oriented primary prevention program.

In the first part of this chapter, the primary prevention relevant theoretical guidelines of the study and some major personality related research results from previous school-focused primary prevention evaluation studies are presented. First, the necessity of early intervention and health promotion in adolescence is discussed. Second, the social developmental characteristics of adolescence are described. Third, the current most widely accepted primary prevention approach, the life–skills approach, is introduced. Fourth and finally, the personality relevant results of the competence oriented and school based primary prevention and health promotion is summarized.

In the second part of this chapter, the lexical approach to personality is briefly introduced, after which the developmental aspects of the Big Five research are discussed. Finally, in the conclusion of the present chapter the research questions for the empirical studies are specified.

1.1 PRIMARY PREVENTION

1.1.1 The socialization-theoretical approach to adolescence

Hurrelmann (1986) describes an interdisciplinary approach for understanding the relationships between personality and social structure. The assumption of this approach is that there is a permanent exchange in the relationship between the development of individuals and societies. Later, Hurrelmann (1990) developed socialization-theoretical guidelines for the research of adolescence, and he formulated, in eight maxims, the characteristics of adolescent development.

As summarized below, Hurrelmann (1990) considers adolescents as productive actors

in forming their lives. In adolescence, one can develop a “personal concept” through social contacts with all the important values, interests, behavioral patterns that are characteristic of the individuals. The individualization and integration processes go together with a mixture of stimulation and stress for the individuals. If these processes become out of balance, a crisis may occur. Moreover, the antagonistic dynamics of these processes may cause a tension in adolescence, and in order to ease the tension or to solve a crisis, personal coping mechanisms are necessary. However, personal coping strategies cannot succeed without an effective social support from relevant others. For successful personality and social development, it is important that the society has a supporting social and political structure. Finally, it should be stated that adolescence should be considered as a separate and sovereign phase in one’s life-span curriculum in our industrial society.

To summarize, personality development in adolescence takes place in a social and ecological context that influences the individuals and at the same time is also influenced and altered by the individuals. This developmental approach is a cumulative approach and it stresses the mutual influence between society, environment, and individuals. It sees adolescents as active (and acting) individuals who are in the development of their identity. In adolescence one must fulfill demands and resist hassles, one has a unique chance to individualization and integration, one needs to develop coping strategies but also needs social support from attachment persons and one depends on the social structural settings of the environment.

1.1.2 Developmental characteristics of the adolescence

Adolescent age is considered as a transitional phase, a “status passage” between childhood and adulthood (Fend, 2000; Flammer & Alsaker, 2002; Hurrelmann, Rosewitz & Wolf, 1994; Maggs, Schulenberg & Hurrelmann, 1997). Adolescence can be divided into two stages: puberty (approximately between the years 12-18), and after puberty (about 18-21 years) (Fend, 1990; Schäfers, 1984). The meaning of adolescence has changed during the last

century as education, social relationships and the importance of peer relations have undergone a considerable change over a period of generations (Hurrelmann, 1987). Professional training and schooling often last up into the age of twenty and the pressure of achievement of family standards has become stronger. Employment in adolescence is an exceptional case: schoolwork and education fills the life of teenagers (Chrisholm & Hurrelmann, 1995).

When adulthood is characterized by autonomy and self-determination, adolescence is the preparation for adult status (Hurrelmann & Lösel, 1990). In the adolescent phase, individuals have many different psychological and social developmental tasks to fulfill: they strive for a separation from parents and family, have to cope with bodily changes, need to develop their own norm- and value-system, should intensify their contacts with peers, and need to increase their financial and vocational skills. In addition to these demands, the age specific needs of adolescents must also be considered: their need for love and security, striving for new experiences, need for acknowledgement, independence and responsibility (Engel & Hurrelmann, 1993; Fend, 1991; Silbereisen & Eyferth, 1986). The conflict and imbalance between needs and demands cause typical tension for the adolescent life-span. The adolescent life-sequence is affected by the dependent childhood-like characteristics (like financial dependence from the parents) on one hand, and on the other hand by an independent self-regulated acting (forming one's own attitudes and opinions).

In this transition phase, bodily, emotional, and social changes occur and these changes fully occupy the attention of the adolescents. The main questions that are stated to the self are concentrated on emotions ("How am I?"), social development ("What am I able to do?"), and identity ("Who am I?"). The adolescent way of thinking is rather egocentric (Elkind, 1978) and adolescents are quite concerned about their appearance, their impression on others, and their abilities. Also, they tend to feel to be the focus of attention of others.

These intra- and interpersonal processes are placed in a multifactorial environment where adolescents are disposed to different influences, like the influence of the family, peers,

school and the media (cf. Larson, Wilson & Mortimer, 2002). It is up to both the environment and to the personal perception and characteristics of the individual to what extent those influences are perceived as supporting or stressful.

The developmental tasks that have to be fulfilled by the adolescents are to a great extent defined by the society and should be solved during the adolescent period. A postponed coping with these tasks or a unsatisfying coping can lead to delays and disturbances in the individual's mental and social development, and so can manifest in deviant behavior or psychological problems. For healthy development it is therefore of utmost importance that needs are satisfied and that age specific developmental tasks are fulfilled (see Havighurst, 1948).

In summary, adolescence is a multifactorial and complex transition phase. By disturbances in the self-regulative processes, it is possible that inadequate coping strategies arise in the form of addiction, delinquency, violence, or psychosomatic problems.

1.1.3 Risk factors and problem behavior in adolescence

Increasing pluralism and loss of tradition makes it more difficult for adolescents to develop a “personal system of orientation” or a “personal identity”, and they often suffer under the pressure to achieve originality or have difficulties meeting the growing expectation from family and peers (Hurrelmann & Lösel, 1990). The fulfillment of the developmental tasks is for adolescents both a goal and a burden and facilitates their abilities and skills to a certain extent. If the familial, personal and financial resources are sufficient, adolescents have a good chance to cope effectively with the developmental challenges. They have the chance to establish durable behavioral patterns that guide their life even in adulthood. In the case of inefficient coping, there is a high probability that disorders or problematic behaviors occur that lead to a high-risk constellation, especially when the adolescents’ own personal aspirations fail (Hurrelmann & Hesse, 1991). Hurrelmann (1987) characterizes high-risk constellations by poor educational achievement, social and emotional conflict with the parents

and/or lack of social integration with the peer group.

Problem behavior appears, when adolescents feel unable to achieve their developmental goals through the help of their resources, and when they lack behavioral competences to meet the requirements of a situation. Problem behavior seems a suitable and effective way out of the developmental trap (Dusenbury & Botvin, 1990; Hurrelmann, 1990). There are certain problem behaviors that lead to the realization of developmental goals: to earn respect and be accepted by a peer group can be reached by violent behavior or by readiness to consume drugs (Pieper, 1999). According to Jessor (1991), risk behavior jeopardizes successful development in adolescence but it is also instrumental, functional and goal-oriented. The acceptance of peers, a better social status, and independence from the parents can be reached through risk behavior such as early sexual experiences, drinking, smoking, and drug use (c.f. Jessor, Donovan & Costa, 1991).

1.1.4 Paths to drug abuse

Silbereisen and Kastner (1985a, 1985b) have summarized the most important functions of legal and illegal drug abuse in adolescence. In the German literature on prevention they are known as “the six paths to drug abuse” [”die sechs Wege zum Drogengebrauch”]. The consumption of health-endangering substances can serve as a substitute to adolescents if they are impeded in their development or cannot succeed in their strive for autonomy and independence.

Drug abuse means rebelling against societal norms and demanding attention from the environment. Drugs can bring short-term release from daily hassles or bring acknowledgement and respect from peers. Specifically adolescents who are in a weak social position and who are without friends may choose drug abuse as a means to integrate in a peer group. On the personal level, drug consumption can increase self-esteem and decrease anxiety. The consumption of legal drugs, like smoking and drinking alcohol is specifically considered an attribute of adulthood, and so can demonstrate an anticipated adult image. It is

therefore important not only to consider the health endangering aspects of drug consumption during adolescent age, but also to take into account the advantages it brings to individuals in their developmental process.

1.1.5 Protecting factors against the emergence of problem behavior

The fact that people react to stress in an idiosyncratic way has led the attention in the last decades to the research of the role of personal protecting factors. Protective factors are not only the absence of risk factors but have an independent effect on behavior, can moderate behavior and therefore have a crucial influence in the psychosocial development during adolescence (Brown & Horowitz, 1993; Jessor, Van Den Bos, Vanderryn, Costa & Turbin, 1995). A positive self-image, future perspectives and healthy stress resistance form the core of protection at the level of individuals (Becker, 1992). Jerusalem (1990) divides the psychosocial protecting factors into two groups: personal and interpersonal resources.

The personal resources include self-esteem and self-assurance, and also a positive and competent relationship to the self. Internal control and the belief in one's own responsibility in life play a role when acting is needed. Social competence and frustration tolerance help to overcome hassles and difficulties in daily life. A stable self concept and self induced activities like sport and hobbies form highly protective factors in coping with stress and tension in adolescence. Under interpersonal resources, Jerusalem (1990) mentions trust, friendship, social support and a supportive environment as a core for co-operation and integration. A network of positive social relations protects against isolation and it fulfills the basic need for love and security in adolescence.

1.1.6 The four-stage model of social deviation, problem behavior and health endangering

Hurrelmann (1991) provided a four-stage developmental model for the emergence of health endangering risk behavior, which was modified by Petermann, Müller, Kersch and Röhr (1997). This model extends the socialization-theoretical approach to socialization in

adolescence with health relevant personal and behavioral aspects in the process of social deviation.

In the first stage of the model, developmental tasks can be solved with the help from personal and social resources. In the second stage, the self-regulative coping processes are disturbed, and problem behavior may appear together with an unsatisfying function of resources (for example, conflicts with parents and school teachers). If these developmental difficulties are not solved, the third stage of the model wins relevance and delinquency or psychosomatic disturbances may become manifest. In the fourth stage, the delinquent behavior and inadequate coping characterize the personal development, and social deviance may appear as a consequence of a deficit in the personal and social resources. This unfavorable developmental process can be corrected at any stage and so turned back to a normal healthy development through adequate intervention and prevention work (Peterman et al., 1997).

1.1.7 Health in adolescence

What is health? How to define health in adolescence? It is obvious that health is not just the opposite of illness and the absence of any physical complaints. According to Kolip, Hurrelmann and Schnabel (1995) health is a socially, physically, and psychologically balanced state of conditions that must be re-organized and re-established at all life stages. The frames for the re-establishment and development of health conditions are provided by the social, ecological, and cultural life settings.

Adolescents are robust in health in relation to other age groups. Adolescent health problems differ from older age. Infectious diseases play a lesser role in morbidity today; more important factors are chronic diseases and psychosocial disorders (Petermann, 1994; Kolip et al., 1995). According to the statistics, traffic accidents, violence and suicide are the leading causes of death at adolescent age (cf. Hurrelmann & Lösel, 1990).

Health endangering risky behavior is often observed in adolescence and it also plays

an important role in coping with developmental tasks. Risky behavior can be divided into two major groups: social norm violations, like aggressive behavior, risky driving and juvenile delinquency; and psychosocial disturbances, like psychosomatic complaints, auto-aggression, chronic diseases, and substance abuse and addictions. The most important illnesses are chronic respiratory diseases, like asthma, bronchitis, and allergy (Kolip, Nordlohne & Hurrelmann, 1995). In most cases, these illnesses appear in a multi-symptomatic way in young age, and so the prevalence records are not independent from each other. According to Hoepner-Stamos (1995), roughly one third of children and adolescents report to have (or suppose to have) an allergy or sensitivity of some kind.

Psychosomatic disorders are not clearly defined and classified. Kolip, Nordlohne and Hurrelmann (1995) reported that approximately one third of all adolescents often feel nervous, suffer from headaches, and have difficulties concentrating or sleeping. It seems that girls have more psychosomatic and physical symptoms during the second decade of their life whereas boys are more vulnerable during their first ten years.

The attitude toward legal drugs is also part of the health relevant aspects of adolescent behavior, for which reason attitudes towards drugs must be integrated in health relevant adolescent research (see Flammer & Alsaker, 2002).

Adolescence is the period of the initiation of substance use that it is embedded in physical and psychological changes, especially in the growing relevance of peer groups where the initial use of substances mostly occur (Botvin & Wills, 1985). Roughly half of all adolescents do not smoke and have only tried drinking alcohol (Kolip & Hurrelmann, 1994; Nordlohne, 1992). It is here that primary prevention plays a major role in becoming a heavy consumer, since it is known that the later individuals become consumers of tobacco or alcohol, the smaller the chances that they become regular or heavy consumers (Leppin, 2000).

Adolescence is a key period for risk-taking and health endangering behavior and the consequences of such behavior often influence adult life, like physical handicaps through

injuries and chronic illnesses through alcohol and tobacco abuse (Hurrelmann & Lösel, 1990). The long lasting health endangering effects of such behavior is not considered by adolescents: they tend to focus on the short term benefits, such as acceptance in a peer group or enhancing self-esteem, and self-assurance. Therefore, adolescence is also a key period for health promotion and prevention work (see Maggs et al., 1997).

1.1.8 Primary prevention in adolescence

Primary prevention has gone through a change during the last decades. Primary prevention sets as its goal the avoidance of abusive behavior regarding the psychotropic substances, like tobacco, alcohol, pills and illegal drugs (see Kröger & Künzel, 1995). It can be classified as substance unspecific, substance specific, or a combination of these two (Kröger & Künzel, 1995). According to Hesse (1993), the substance specific and unspecific prevention approaches can be further classified into traditional and psychosocial based concepts (Battjes 1985). In the following a short overview of the most widely used primary prevention concepts are presented (see also Kröger & Hanewinkel, 1996).

1.1.9 Traditional and substance specific primary prevention

In the middle of the last century, primary prevention was concentrated on deterrence and education with respect to the negative effects of endangering health, for example, black lungs due to smoking. Today we know that providing information and demonstrations do increase the knowledge about the unhealthy substances, but this happens without any behavioral effect at all. Moreover, *fear communication and moral persuasion* may increase anxiety, and thus maladaptive coping strategies such as a defensive reaction to the threat (Leventhal, 1970). Kröger und Künzel (1995) state that some concrete and person relevant information can be meaningful, such as the short term consequences of smoking (e.g., getting yellow teeth) and about the statistical proportion of smokers in society, because this rate is highly overestimated by adolescents. It is often cited that adolescents tend to overestimate the number of smokers and therefore see smoking as a rather normal behavior (Botvin et al., 1993; Botvin, Botvin,

Baker, Dusenbury & Goldberg, 1992).

1.1.10 Traditional and substance unspecific primary prevention

The almost thirty year old *affective educational approach* postulates that low self-esteem, the lack of emotional and social competences and personal deficits can merge into substance abuse. When these deficits are counterbalanced, through discussions, lectures or group exercises, the abusive behavior may disappear. Although this approach has shown a low or no effect, its basic idea is still considered adequate (Tobler, 1986). Another approach from the same time is captured in the *model of alternatives*. This model is based on the assumption, that problem behavior (Jessor & Jessor, 1977) or substance abuse often occurs because of boredom and it brings relief to the person in the form of relaxation.

Problem behavior is also connected to unspecific primary increase in inner pressure, and it is supposed that by providing functional alternatives, one can help avoiding abusive handlings (Silbereisen & Kastner, 1985). The goal of the model of alternatives is to provide substantial alternatives (sports, music, games and other social and spare time activities) to health-endangering behavior. This approach also has deficits in its direct effectivity but shows an indirect positive effect on personality development, such as independence and stability, especially in risk groups (Kröger & Künzel, 1995).

Summarizing, the traditional prevention techniques were not found very effective as they were not able to alter the real causes of substance use and abuse, and they did not show much impact on the current substance use either (e.g. Berberian, Gross, Lovejoy & Parapella, 1976; Dusenbury & Botvin, 1992; Schaps, Bartolo, Moskowitz, Palley & Churgin, 1981).

1.1.11 Substance specific psychosocially oriented primary prevention

While the substance unspecific prevention methods proved to be rather inefficient in the long run, the psychosocially oriented methods show a substance specific character. In these concepts, the psychosocial functions of substance abuse in adolescence are included and so are put in the relevant developmental frames (Hesse, 1993).

The *social inoculation strategy* (Evans, 1976; Evans, 1984; Evans et al., 1981) incorporates social resistance training through social model learning against the peer and environmental pressure to smoke. The prevention effect is reached by persuasive film messages that aimed at providing effective skills to adolescents to resist the pressure to smoke. Evans et al. (1981) reported lower rates of the intention to smoke in the intervention group in comparison to the control group.

The *social resistance training* against negative social influences (Best et al., 1984) builds on the techniques of the so-called inoculation strategy and expands it through the involvement of mostly older peer leaders in the prevention program as teachers of generic cognitive behavioral skills (Botvin & Eng, 1982). The goal of the social resistance training is to help adolescents learn more through social learning and attitude change about group and social pressure practiced by peers or media and to help them develop skills to resist social pressure effectively. Studies based on social resistance training report high effectivity in the reduction of smoking onset and a significant reduction of smoking frequency rates (Best et al., 1984; Telch, Killen, McAlister, Perry & Maccoby, 1982).

1.1.12 The Life-Skills Training - a multimodal approach to primary prevention

The life-skills approach is a combination of both substance specific and unspecific methods (Botvin 1986; Botvin & Tortu, 1988). This multimodal and integration approach combines aspects of the previously introduced primary prevention methods. Its goal is the development and support of life relevant skills that enable adolescents to deal competently with developmental tasks and that makes it possible for them to act autonomously and maturely. Life-skills are a combination of social (e.g., communication skills) and personal skills (e.g., effective coping strategies). Such skills are needed for competent and healthy adult behavior. The main goal of this training is to teach adolescents generic coping skills together with some specific skills in which they learn to be able to resist social pressure to engage in unhealthy behavior like smoking, drinking alcohol and using drugs. The life-skills approach is primarily

cognitive behavioral in orientation, both substance specific and unspecific, and it concentrates on the promotion of generic life-skills. Life-skills are emotional competences, like the recognition and expression of emotions; social competences, like communicational skills and conflict solving strategies; and behavioral competences, like assertivity.

A life-skills oriented prevention program is expected to facilitate positive self-esteem and self-picture through cognitive behavioral methods like role-playing and it should also strengthen psycho-physiological regulation and stress resistance through relaxation exercises. Social resistance, especially against group pressure, is also an important part of life-skills training; it is often practiced through modeling, positive feedback, and rehearsal. Life-skills trainings are a combination of substance specific and substance unspecific units, and so a drug specific aspect is also included, as a combination of concrete information and practical experiences about the causes and effects of substance consumption (see Botvin & Dusenbury, 1987).

Good school-oriented social-skills prevention incorporates class exercises and also facilitates a positive class climate. Moreover, under favorable class climate conditions, the effectivity of prevention is proven to be better (Leppin, 1999; Leppin, Hurrelmann & Freitag, 1994).

The evaluation of life-skills training programs showed a rather high effect both in the consumptive behavior and in the personality sphere (Botvin, 1988; Botvin, Eng & Williams, 1980). A 50 percent reduction in cigarette smoking and 87 percent reduction in new regular smoking was reported in a life-skills training with a booster session (Botvin, Renick & Baker, 1983). In alcohol use, a reduction of 54 percent of frequent drinkers, and 73 percent of heavy drinkers was reported in the first pilot study with the social-skills training (Botvin, Baker, Botvin, Filazzola & Millman, 1984).

In general it is found, that while the traditional approaches remain without substantial effects, the psychosocial oriented approaches do prove their effectivity when tested (Flay,

1985; Tobler et al., 2000).

1.1.13 Personality variables in the life-skills oriented primary prevention

In almost all studies, personality variables were included in the evaluation process of the life-skills oriented school-based primary prevention programs and the effects of a life-skills oriented training on personality related variables were often measured together with the substance specific variables. The evaluative studies are divided here into two groups, according to their substance specific character: smoking and alcohol prevention studies.

Personality variables such as assertiveness, locus of control, social anxiety, self-esteem, self-confidence, and general influenceability (Botvin, Baker, Filazzola & Botvin, 1990) were assessed in a one-year follow-up study of smoking. The major focus of the evaluation was on the effect of the intervention to initiation of substance use and to knowledge and attitude changes regarding smoking with a program implementation by peers and teachers and under the conditions of booster sessions. Here, a positive change in the locus of control was observed under the peer/booster experimental conditions.

Botvin and McAlister (1981) and Millman and Botvin (1983) found that in the prevention of smoking, lower assertiveness, low self-esteem, high anxiety and an external locus of control do correlate with substance use. Botvin, Eng and Williams (1980) observed a decrease in social anxiety and need for group acceptance in 8th graders in their experimental group with a smoking prevention life-skills training. They found the greatest decrease in social anxiety in the male subgroup. This result was replicated with 8th and 10th graders as participants in a ten session long life-skills smoking prevention program (Botvin & Eng, 1980). Also, Botvin et al. (1993) found an increase in assertiveness, self-confidence, self-satisfaction and a decrease in external locus of control, social anxiety and influenceability. This was found after a two-year longitudinal life-skills prevention study with adolescents in New York. Botvin et al. (1993) analyzed smoking behavior in a group of black adolescent students. They found that while smoking behavior was most strongly predicted by smoking

peers at the onset of the study, three months later, personality variables such as self-esteem, self-efficacy, and decision making exerted important influence on smoking behavior. Why these personality effects only appeared at a later time was not quite clear to the authors; they attributed it to a lack of statistical power and uncontrolled developmental issues. Background variables such as ethnicity, age, gender, and family structure were, in the majority of the studies, not related to smoking (Botvin et al., 1992; Botvin & Eng, 1982).

The efficacy of the psychosocial substance prevention was proven for smoking in adolescence, and it was also tested in alcohol prevention (Botvin et al., 1984). For this purpose, the smoking specific life-skills training was adapted for alcohol prevention. In the prevention of alcohol consumption in a group of predominantly minority students there was no traceable effect of the mediating personality variables like self-esteem, self-efficacy, risk taking, and assertiveness (Botvin, Schinke, Epstein & Diaz, 1994). In another study with minority students, low correlations were found between the intention to drink, drunkenness and the frequency of drinking, on one hand, and personality variables like self-esteem and self-efficacy on the other. Risk taking correlated with alcohol consumption and hopelessness (Epstein, Botvin, Diaz & Schinke, 1995). In both of the above studies on alcohol prevention, background variables such as gender, race, age and academic performance showed no preventive effect.

Newer results showed that personality variables like high self-esteem and personal self-control strategies also play a protective role in alcohol prevention (Griffin, Botvin, Scheier, Doyle & Williams, 2003; Scheier & Botvin, 1998; Scheier, Botvin & Baker, 1997; Scheier, Botvin, Griffin & Diaz, 1999; Scheier, Botvin, Griffin & Diaz, 2000). In studies of life events, neighborhood effects and alcohol use, personality variables, especially internal locus of control, showed a beneficial effect in prevention. Negative life events and social stress were found to be main predictors of legal drug use (Scheier, Botvin & Miller, 1999).

Comparing the effects of smoking and alcohol prevention in a three-year longitudinal

study with a participation of 56 schools in New York State in the U.S.A., a stronger prevention effect for smoking than for alcohol use was found (Botvin, Baker, Dusenbury, Tortu & Botvin, 1990). Reduced alcohol consumption and cigarette smoking was also found in a study on the developmental progression in legal drug use through a three-year longitudinal program and social-skills trainings (Scheier, Botvin & Griffin, 2001).

Some general remarks about the limitations of the life-skills evaluation programs should be made. The studies were based on self-reports, so a positive bias in the testing situation may be expected and therefore the validity of the data may be questioned. Some studies did not use representative data, and so the generalizability of the result is problematic (Botvin & Eng 1980). There is also some doubt about the life-term effectivity of the prevention, as no such effect has yet been found, but also because only a few studies were able to do follow-up research after the maximum of two years, when the students had already left school and were no longer contactable by the researchers (Botvin, 1988; Resnicow & Botvin, 1993).

In conclusion, a relatively high consistency of the prevention results across studies and samples suggest a rather stable validity and effectivity of the method, and makes the social-skills training an eligible candidate for further implementations (see Botvin, Scheier & Griffin, 2002).