



# Childhood and Adolescence: Prevention and Health Promotion Models



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## Abstract

Health, as an asset in danger, belongs to the acute social problems in the transition to the third millennium. This particularly concerns the situations of the lives of children and adolescents. Prevention and promotion of health are of particular value in childhood and adolescence, as at this stage of life healthy or unhealthy behaviours are being established. The purpose of this study was to approach, analyse and finally examine the prevention and health promotion models with regard to children and adolescents. The method adopted for this study was a review of the relevant literature. On the basis of this study, we realize that the traditional perception of prevention is risk-oriented. Since the 1980's, there has been a change, so that you no longer ask, "what makes people ill?" rather than "what helps people remain healthy despite the unpredictable burdens?" (Salutogenesis). This involves the development and stabilization of so-called protective factors, such as internal control conviction, trust in oneself, positive self-confidence, and an optimistic basic mood. In the course of the study, it is clear how one can enhance the so-called protective factors in childhood and adolescence in order to promote the positive development of the personality. In addition to presenting theoretical explanatory proposals on health behaviour, we also explain the impact of hitherto ideas and programs as well as what have been their consequences on prevention work.

**Keywords:** Prevention and health promotion models; Childhood and adolescence

## Introduction

The limit between the concepts of preventing and promoting health is not always clear. In the relevant literature these terms are often used as synonyms. For this reason, based on some definitions, we will try to identify differences and common elements before dealing with what is meant by prevention and health promotion. Prevention and health promotion concern activities of individuals and institutions aimed at preventing disease and promoting health. With direct and indirect influence on the level of knowledge, motivation, perception and living conditions, significant, regarding health, behaviour should be positively changed [1]. Health, as an asset in danger, belongs to the acute social problems in the transition to the third millennium. This particularly concerns the situations of the lives of children and adolescents. Prevention and promotion of health are of particular value in childhood and adolescence. On the one hand, healthy or unhealthy behaviours are being established at this stage of life. On the other hand, at this age, the sense of danger is very little developed, which can lead to dangerous behaviours. Due to the fact that health prevention and promotion measures most often refer to later stages of life, we rarely encounter them in childhood and adolescence. Moreover, surveys show that the traditional perceptions that provide information and use intimidation are ineffective. In most cases, they require moderation and discipline, and therefore contravene the typical lifestyle of young people, which is characterized by fun, flexibility, spontaneity, preparedness for risk and enjoyment.

## Methodology

The present research is a bibliographic review study, presenting the critical points of the existing knowledge about a theoretical approach to the concepts of "Prevention" and "Promotion" of health, thereby helping to support the health of children and adolescents. There is no specialized and comprehensive work on this subject in the relevant literature. This work endeavours to cover this gap and will perhaps also be a useful aid for those who in the future will attempt similar efforts. The main aim of the bibliographic review is to frame the study within the "body" of the relevant literature. The review of the current study concerns clearly formulated questions and uses systematic and explicit criteria for critically analysing a body of published papers by summarizing, sorting, grouping and comparing.

## Bibliographic Review Study

### Theories

Health promotion goes beyond the classic concept of prevention. According to it, prevention includes avoiding illness (diseases must be recognized as early as possible and effectively treated) and maintaining health. In order to avoid or change positively undesirable behaviours, it is necessary to learn the respective knowledge and to influence perceptions [2]. Prevention is divided into primary, secondary, and tertiary.

**Primary prevention includes:** Health promotion and disease prevention by eliminating one or more causal factors, by increasing the resistance of the human body and changing the environmental factors that are causally involved as carriers in the onset of the disease. Therefore, primary prevention measures refer to the causes of the disease. This means that there is still no illness, but rather risk factors are reduced as well as unhealthy behavioural patterns that adversely affect health, in order to diminish the risk of a disease [3].

**Secondary prevention:** Secondary prevention measures, often identified with treatment, refer to the existence of the disease. Diseases and risk factors should be recognized early and treated. The goal of tertiary prevention is to prevent the consequences of the disease and to avoid relapses and aggravations. The measures relate to the course of the disease and refer to patients who already have a disease and are being treated. Tertiary prevention is often identified with rehabilitation [4].

The traditional perception of primary prevention is risk-oriented and disease-oriented. Since the 1980s, the model of risk factors has been shifted to the model of generating health [5]. That is to say, we are not looking any more for risk factors for the occurrence of illnesses, but we rather examine the question of how a person can remain healthy, despite the unpredictable burdens. This is reflected in the concept of health promotion:

Health promotion aims at a process that will allow all people to better define their living and environmental conditions and enable them to enhance their health [6]. The goal of health promotion is to avoid dangerous for the health factors by changing and promoting collective and individual health behaviour and living conditions. Therefore, it is not only about eliminating risk factors such as smoking, but also about building protective factors (personal and social skills). For example, problem-solving strategies should be developed to avoid disrupting personality development as a consequence of a negative event. The transition from prevention to health promotion is fluid. The goal is to prevent illness, avoid health hazards, improve living conditions, and contribute to positive personality development [3].

The concepts of prevention and health promotion are most often used in relation to information, counselling and treatment measures.

According to [4] these measures are classified into:

- A. Information and advice about health,
- B. Health education,
- C. Health training and preventive medicine and
- D. How can a person take care of his/her health?

Health information includes the transmission of health and disease information in the public domain, the change of attitudes and the influence of behaviour. The information may be addressed to individuals or to a wide audience. Health education includes all personality enhancing strategies by transferring knowledge and capabilities, in order to enable the individual to organize himself/

herself a healthier behaviour, and the development of significant for health environmental conditions [7].

It takes place at home, in kindergarten, at school and in out-of-school pedagogical institutions and tries to influence and direct health attitudes and behaviours to contribute to an independent and responsible life.

The needs of each recipient and the development of his/her abilities are of great importance in this issue. Health education tries to help children and young people in decision-making and problem-solving processes and thus contribute to their personal development process [8]. Health information and health education aim to transform the information transmitted to the cognitive, emotional and emotive level into a corresponding behaviour. [9] emphasizes that health behaviour is determined by many factors, and in the meantime, it is known that people do not change their behaviour simply because they receive information about health threats.

These prevention strategies focus too much on individual behaviour and overlook the fact that behaviour also depends on environmental factors. Also, they do not specifically consider the target group or the individual. Therefore, other factors seem to play a role in the successful prevention and promotion of health. For example, information on health and health education should be linked to psychosocial measures [9].

### **Primary prevention: objectives and approaches of modern models**

Particular importance is attached to primary prevention during childhood and adolescence. On the one hand, healthy or unhealthy behaviours are established at this stage of life, and on the other hand, at this age, the feeling of danger is very poorly developed, often leading to dangerous behavioural patterns, especially in adolescence. The primary prevention function is to promote the activity of children and young people through the classification of the need for control as well as the acceptance of the existence of positive emotions [10].

Primary prevention usually has three different goals:

- A. It seeks to support and promote healthy attitudes and behavioural ways that reduce stress, as well as the ability of individuals and groups to deal with and improve daily burdens or to reduce these burdens.
- B. Diseases and mental disorders should also be avoided by identifying and influencing certain risk factors in a timely manner.
- C. The third objective is to protect and preserve health by improving living conditions (or) and reducing harmful factors in the natural and social environment [11].

This can be achieved, for example, by specific and non-specific prevention measures, which differ from primary prevention measures. Specific prevention refers to known causes and certain risk groups, while non-specific prevention concerns more general measures. Specific prevention includes measures focused on the problem and can, for example, be applied at

some developmental stages or when critical events occur. The measures may include children and adolescents in certain stages of development or specifically address risk groups that have been identified as dangerous, in terms of development, based on a diagnostic separation. Such specific prevention programs are pre-school or school programs aimed at children and young people with developmental, learning or behavioural disorders. Outside school, the family is considered an important target field of this prevention in childhood and adolescence. Measures such as offering consultation, escorting to critical events such as family member's death or divorce, attempt to support parents in their role and strengthen family resources [12].

Other examples of specific prevention measures are dietary measures, in case of congenital metabolic disorders or any campaigns for the risks of excessive alcohol consumption. These programs require that factors indicating the increased health risks can be identified (critical event and social-life factors), and that these factors justify the classification of the individual in a particular group. Here the problem consists of separating this risk group from the general group. On the one hand, this must be possible in order to keep as low as possible the rate of incorrect or incomplete classifications. On the other hand, however, there is a risk that this classification would be interpreted negatively by the person concerned. This classification may result in a characterization by the population, which in turn may lead to a weakening of the incentive to participate in the risk group. For this reason, it is important not only to identify uniquely the risk groups, but to treat them sensitively, so as to minimize the risk of marginalization and consequently stigmatization.

Non-specific prevention refers to measures most often aimed at institutional and social framework conditions (health-promoting schools, optimizing neighbourhood play areas, influencing risk sources, exceeding the speed limit, reducing the availability of alcohol and drugs). It may refer to general risks and powers of children and adolescents or to non-specific groups and therefore be made independently of specific preventative goals. An example of a classical non-specific strategy is the method of separation in the context of infant screening, carried out by the paediatrician from birth until the 60<sup>th</sup>-64<sup>th</sup> month. Another example could be also the rough selection in kindergartens to identify children with potential developmental disorders. After such separation methods, preventive measures are introduced, which are specifically applied to the risk group [12].

Non-specific prevention also includes people-centred programs, the aim of which is to promote general life and coping skills. Such programs are based on the idea of life skills and contain the learning of cognitive, kinetic-aesthetic, social and emotional abilities [13]. They try to address problems that become important in the face of imminent developmental duties and problems, as well as elaborate and implement corresponding strategies for overcoming certain issues (substance abuse prevention). Other measures of non-specific prevention include interventions to reduce stress in school, workplace or family, as well as building skills for coping with crises. Primary prevention is also divided into prospective prevention and

retrospective prevention. While the former is trying to take action before a possible crisis or risk occurs (preparation for the transition to school with activities in kindergarten), retrospective prevention aims to help overcome the burdens, crises or risks that already exist (care for people after their divorce) [14].

### Conditions prevention vs behaviour prevention

This part refers to the separation of the concept's prevention at the level of conditions and prevention at the level of behaviour. Prevention at the level of conditions refers to unhealthy conditions prevailing in the human environment. The goal of prevention at the level of behaviour is to prevent behavioural disorders through influencing lifestyle. The idea of interventions at the level of conditions assumes that individual behaviour is dependent on environmental conditions. A person must be approached in such a way as to change the ecological and social conditions that are responsible for the state of that person's life. To influence behaviour, health risks related to environmental conditions and living conditions are controlled, reduced or eliminated. Preventing measures at the level of conditions are mostly carried out on the basis of laws and decrees (a ban on installing automatic cigarette vending machines in the school yard, compulsory seatbelt use, a ban on smoking in public services). The advantage of prevention at the level of conditions is that the target individuals are directly approached, and most often they cannot avoid the measure [10].

Prevention measures at the level of behaviour refer to the individual, namely to the environment where the person lives, to the biographical surroundings and personal resources (personal abilities, capabilities of action) of a human being [1]. With information and advice on health, health education, health training and preventive medicine and/or self-help in health issues, a person not only changes the way he/she copes with dangerous to health behaviours, such as smoking, drinking and drugs, polyphagia and inadequate nutrition, lack of movement, anxiety, but also the behaviour itself. People need to be informed about health risks and widen their knowledge. An example of a behavioural prevention measure is the recommendation to pregnant women to quit smoking and to participate in a smoker's group who desire to quit smoking [4]. Intervention methods at the level of behaviour refer to behavioural regulation models such as the health-belief model [15], the theory of self-efficacy [16], and the theory of reasoned action and planned behaviour [17]. These models, which are knowledge-oriented or refer to perception, try to explain behaviour as regards health.

While in the professional context most of the time prevention programs are being implemented at the level of conditions, in the school sector we often encounter programs which include behavioural prevention and prevention at the level of conditions. Ideally, the change of personal perceptions and behavioural patterns is accompanied by a change in the framework conditions, something that is important for health. For example, in anxiety treatment programs they do not only teach strategies to deal with anxiety, but they also analyse the stress factors and this in the long run leads to reduced stress. The aim of these programs is to create

healthier conditions in school life, as well as to support students in the development of healthy lifestyles. Therefore, in all behavioural prevention measures, consideration should also always be given to issues and factors that influence environmental and living conditions. Health promotion can only be achieved by combining prevention at the level of behaviour as an influence on individual health-related actions, with prevention at the level of conditions as an influence on material, social and cultural living conditions, and environmental conditions concerning health, risk and disease.

### The health-belief model

The health-belief model is attributed to [15] and attempts to explain or predict preventative behaviour. It consists of four main components:

- A. Perceived susceptibility, (an individual is willing to behave preventively if he/she feels susceptible to a particular health problem),
- B. Subjective assessment of the severity of a health problem (perceived severity),
- C. Perceived subjective benefits (benefits of a measure) and
- D. Perceived subjective barriers as regards the preventive behaviour (barriers) (expenses, time required, labour, having to abandon pleasures and enjoyments of life).

External and internal stimuli (that cause a certain behaviour or stimuli calling for action) are also taken into account. These stimuli include guidelines for health behaviour that are disseminated by the media or the social environment. They can enhance or reduce the willingness to act or lead it to a particular direction.

Further model features include demographic, socio-psychological factors and factors that influence behaviour (age/gender, income, educational level, personality, and social group integration). The model is based on a cost-benefit analysis, that is, it is not enough for individuals to assess that they are susceptible to a health problem or at risk, or to assess the degree of this health problem as severe, but they rather expect a drastic countermeasure to be able to cope with the threat of a disease or reduce the threat. Therefore, if the benefit of a preventive measure is more appreciated than the obstacles, the probability of preventive action is great. In summary, the health-belief model is based on the fact that the willingness to change a certain behaviour is increased if one is convinced of the risks of that behaviour and also realizes the benefits of the change and does not consider the obstacles insurmountable. In contrast with the degree of the experienced severity of a disease, perceived susceptibility and perceived obstacles are considered to be the variables in which the effect of health-related actions could be more often demonstrated. However, if we look at the issue in its entirety, the above-mentioned parameters appear to have only a minor impact on disease and health behaviour [4]. In the course of time the model has changed. Of particular importance was the inclusion of self-efficacy.

### The theory of self-efficacy of Bandura

A large number of studies have shown that a person's attitude towards performance (at school/university/work and athletics), as well as his/her social behaviour (communication and providing assistance) and his/her attitude towards health issues (drug consumption, nutrition and sports) can be relatively well predicted, if one takes into account how 'effective' this person considers to be in the performance of certain individual behaviours [18].

The theory of self-efficacy of [16] is used to explain motivation and behaviour in different areas of life. At the centre of the theory are the self-efficacy beliefs, which are also called the gains of self-efficacy [18]. It deals with the question, if one can really perform a health-related action. Preventive action is mainly determined by whether the person concerned expects this act to improve his/her health (consistency expectation) and whether he/she is able to perform this act accordingly (self-efficacy or ability expectation)

[16] by self-efficacy gains means «... the conviction that one can successfully execute the behaviour required to produce the outcomes».

Therefore, a person's self-efficacy expectations include the belief of that person that in certain situations he/she can perform and control a certain alternative behaviour. Therefore, the chance to perform a certain behaviour increases if one expects to have the required skill for it:

«The stronger the efficacy expectations, the higher the likelihood that threatening tasks will be dealt with successfully» [16].

People with higher expectations than their abilities are more able to abandon ways of dangerous behaviour and maintain healthy behaviours for longer, as long as they are convinced that this is necessary and have made a firm decision. In order to introduce some behaviours, it is not only the gains of self-activity that matter, but the expected results and consequences. They include the acceptance that with a certain action someone can achieve a certain result. A result that already exists can be attributed either to the previous behaviour or to appear completely independently of it. The control perception, in this regard, means that the action previously performed is responsible for the outcome. The importance of self-efficacy and control perception as regards health prevention and promotion arises from the fact that there is little willingness for health-related actions if the health state is considered not controllable. But if a person is convinced that he/she can solve an existing problem or that he/she is in control of a situation, then he/she will behave accordingly. Thus, a person who wants to lose weight and would like to acquire a lean body (=consistency expectation) has the incentive to adapt his/her diet and to exercise regularly if he/she believes he/she will achieve this goal (= belief in self-efficacy). On the other hand, the certainty that one can perform a certain task can have an encouraging influence, only if one is convinced that by doing so one will achieve the desired

result. Only if this expectation exists to a sufficient degree can self-efficacy affect behaviour. Such expectations on the one hand affect people's behaviour, but on the other hand they are mainly the result of learning experiences. If someone in certain situations (anxiety) has managed not to resort to cigarettes, chocolates, etc. then he/she is confident that he/she will be able to resist the next time. People with high self-efficacy expectations consider activities and situations as a challenge and attribute success more to internal causes. They have an optimistic approach to their efficiency; they seek to discover and try something new and engage in tasks with optimistic predisposition.

On the contrary, people with low self-efficacy expectations tend to underestimate their abilities. They attribute their success to more favourable factors, for example, how easy the task was. They tend to attribute failure to lack of talent (aetiology) and refrain from posing to themselves demands that they cannot cope with their supposed inadequate abilities. They are more reluctant, feel easily helpless, depressed and afraid, and cannot, or can hardly, maintain an attitude for long. Therefore, for a long time there is an alternating stabilization of the expected competences and real capabilities: when problematic situations are avoided due to the fact that the individual believes that he/she has few capacities, this can lead to atrophy of the respective abilities, which in turn may reinforce the conviction that he/she has less abilities. For example, frightened people avoid social situations. Thus, they are unable to exercise their communication and interactive skills, which are consequently declining and decreasing. People with low self-efficacy will interpret failures as evidence of inadequate skills, which confirms and stabilizes the belief about inadequate abilities [18].

The individual's efficacy expectation affects the possibility of exercising a new behaviour and therefore plays an important role in primary prevention. Because primary prevention measures aim, among other things, at replacing established patterns of behaviour-routine with new ways that need to become automated [3]. For children and young people, it is very important to build self-efficacy expectations because those with less self-efficacy are more vulnerable to group pressure. The individual's self-efficacy expectations are a protective factor against social influences and other risk factors. For this reason, the ability to withstand group pressure on consumer behaviour (smoking) should be promoted [19].

### The theory of reasoned action

The model of the reasoned action theory was originally developed to state the relationship between perception and behaviour. According to this theory, an action is strongly determined by an intention. The behavioural intention is in turn determined by the attitude (emotional assessment) towards the dubious behaviour and by the subjective norm, i.e. the social expectation pressure about performing or not performing a certain behaviour (what do significant people think about my behaviour) [17].

The attitude towards certain behaviour (I consider it good / bad to smoke) depends on the expected result that is associated with that behaviour. This means that if a positive result is accepted, this will result in a positive response to the previous behaviour and vice versa. The subjective norm emerges from the expectations perception of the individuals belonging to the reference groups with their own norms (other significant people), such as parents, friends, teachers and acquaintances. It depends on whether these other significant people are in favour of this behaviour or consider it to be wrong (belief as regards norms) and want to adapt incentives to the expectations of their environment [20].

If both sides are satisfied, so if in the case of a behaviour the belief regarding norms and motivations exists, then the likelihood of performing this behaviour is increased. For example, if the effects of smoking are mainly evaluated positively, then there is a strong chance of starting or continuing smoking. If the social environment is also in favour of cigarette consumption, then the likelihood is even stronger. In most studies, a confirmation of theoretical gains was demonstrated. However, the self-efficacy expectation is not included in this model. The theory refers only to situations in which one can also control an action [3].

### The theory of planned behaviour

Influenced by Bandura's self-efficacy theory [16], the theory of reasoned action was further developed and supplemented with the Behavioural Control element. The original model presupposed that a person has the corresponding skill, experience or ability to be able to perform a behaviour. In most situations, however, this was not the case. For this reason, in the expanded Theory of Planned Behaviour model, one's belief that one can actually perform an act [18] is taken into account. Health behaviour is mainly performed when the person not only has the necessary expectations of consequences, but at the same time, the corresponding expectations of his/her abilities [20].

Since the 1950s efforts have been made through the models described previously to explain dangerous and healthy behaviours in terms of perceived health risks and countermeasures, as well as through personal beliefs and norms. But the balance was disappointing. The above-mentioned theories have focused on the stage in which a person has taken a decision to act. They absolutely do not say anything about the actual performance and maintenance of healthy behaviours. Therefore, they cannot adequately predict behaviour [19].

### Prevention Conclusion in Children and Adolescents

The problem of applying the above-mentioned models to health-related behaviour in childhood and adolescence is the inadequate formulation of these theories based on Evolutionary Psychology. Due to the fact that the basic characteristics of health behaviour are determined by childhood and adolescence, the lack of aspects of Evolutionary Psychology makes it difficult to transfer these models to this age group. Furthermore, most of the previous

prevention models are based on the idea that with information and intimidation a change of behaviour will be achieved, and health will be positively influenced. The ideas of intimidation are based on the presentation of the negative consequences of unhealthy behaviour in order to cause negative emotions such as fear, the sense of threat or feelings of guilt, and thus to achieve behavioural change. However, it was evident that such applications have little success in children and adolescents. Children and young people are shocked by the negative effects of smoking, but they do not relate these consequences to themselves [21].

Information and presentations about health disorders are subject to selective perception and undergo cognitive distortion. Defensive tendencies, an increased belief in the protective resources of the individual, personal experiences concerning the course and severity of illnesses, and subjective perceptions of disease spreading contribute to unrealistic optimism as to whether the individual is invulnerable. Only when the epidemiologically defined risk is referred to the individual is a more objective assessment of the same risk possible. Through this subjective perception, the willingness for a lifestyle oriented towards prevention can be promoted. The transmission of information on this subject can only be a first but important step [22]. By transmitting information and knowledge, children and young people learn more about health threats, but they do not change their behaviour. In adolescence, risk behaviour is often determined by instant emotions and it takes shape depending strongly on the situations (the charm of the forbidden). Although some basic knowledge is needed to enable healthy behaviour (diet), this is not enough to bring about a change in behaviour [19].

Good informative programs cannot change behaviour but offer knowledge and various critical positions. Therefore, the transmission of knowledge, which must be actively formed (role playing, working in small groups), needs to be supplemented by further measures (at the level of behaviour). In addition to the transmission of knowledge about health promotion and prevention, other cognitive structures and actions also play a role, such as self-efficacy gains, control beliefs, willingness to risk, and the perception that a person has for himself/herself. We set as a basis that positive feelings relating to the individual, such as belief in oneself, self-confidence, etc., increase the willingness for healthy behaviour. With a positive feeling of self-confidence at the same time there is a higher willingness for effort and greater resilience when coping with problems. On the contrary, with a negative self-esteem, there is a risk that children / young people may try to measure their self-esteem in an inappropriate way: trying to gain recognition in a group with smoking. For this reason, prevention programs should offer alternative ways to increase self-confidence so as to avoid an unhealthy way of stimulating self-confidence. Measures that aim to increase self-confidence should also provide the desired goal to which behavioural change must be directed at and be associated with behavioural change strategies. It is also important that prevention measures take into account the individual needs

of children and young people, and to include social and emotional parameters, since health behaviour has deeply its roots in the habits of individual motivation and personal life. Preventive ideas and programs give great value to starting a healthy behaviour and a healthy lifestyle early, because then the chance of maintaining a healthy lifestyle for a long time is great. Particularly important is the orientation of prevention programs in stages of development and taking into consideration the cognitive and motor conditions of children and young people. The more customized the program at each stage of development, the greater the probability of success of that program [7].

## Conclusion

At the beginning of this study, the concepts of Prevention and Health Promotion are explained, so that their differences and common points, as well as their content and goals, arise. The traditional perception of prevention is oriented to risk factors. Since the 1980s, there has been a change, so that you no longer ask, "what makes people ill?" rather than "what helps people remain healthy despite the unpredictable burdens?" (Salutogenese). This involves the development and stabilization of so-called protective factors, such as internal control conviction, trust in oneself, positive self-confidence, and an optimistic basic mood. In the course of the study, it is clear how one can enhance the so-called protective factors in childhood and adolescence in order to promote the positive development of the personality. In addition to presenting theoretical explanatory proposals on health behaviour, such as the health-belief model of [15], the theory of self-efficacy of [16] and the theory of reasoned action and planned behaviour of [17], we also explain the impact of hitherto ideas and programs as well as what have been their consequences on prevention work.

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