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HEALTH BEHAVIORS OF YOUNG PEOPLE – THE ROLE OF PSYCHOLOGICAL AND FAMILY DETERMINANTS

Introduction

The question of a healthy lifestyle has become more and more popular during the recent years, not only in the scientific circles. The number of papers and publication concerning health-impacting factors increases, and their results can be summarized by stating that different human behaviors are greatly responsible for the state of our health. According to the concept of so-called "health fields" following factors have the major impact: healthcare (10%), inheritance (16%), physical environment (21%), whereas the greatest impact is attributed to the lifestyle (53%) (Lalonde, 1974, quoting after: Ogińska-Bulik, Juczyński, 2008).

Growing social awareness regarding the impact of lifestyle on health condition is possible due to programs promoting healthy lifestyle and prevention of behaviors that are hazardous to health. General school prevention programs are available already on early stages of education (Simm, Węgrzyn-Jonek, 2002). At the same time, both children, adolescents and adults become recipients of social health-promoting programs (for example: drinking unsweetened water, eating vegetables and fruit, etc) and medical prevention initiatives (vaccinations, screening tests, etc). All these activities are particularly important when developing health behaviors patterns, i.e. during childhood and adolescence. However, despite the introduction of constantly increasing number of prevention programs at schools the tests often show their inadequacy and ineffectiveness (Juczyński and others, 2004; Sierosławski, 2007). The number of such impacts is greatest for the adolescent group, as it is particularly exposed to behaviors with harmful health impact (Oblacińska, Woynarowska, 2006; Mazur and others, 2007; Sierosławski, 2007; Kolbowska, 2008). Latest studies monitoring the lifestyle of adolescents (*Health Behaviour in School-aged Children, A WHO Cross-national Collaborative Study)*

carried out in Poland in 2010, show numerous deficiencies in pro-health activity of adolescents. For example, physical activity level of Polish adolescents decreases with age and constantly remains below the recommended level. Young people spend too much time on passive interests, mainly watching TV or in front of the computer (Mazur, Małkowska-Szkutnik, 2011).

Apart from studies looking for the determinants of health a second trend develops – studies aimed at finding the determinants of pro- and anti-health behaviors. These studies are based on different theoretical models, such as Jessor's problem behavior theory (1977, quoting after: Woynarowska, 2008) or the model of family determinants of health behaviors (Sallisa, Nadera, 1988). These models highlight the role of psychological and social factors, including family factors. Researchers often choose one of the factor groups and explore it empirically. This choice is particularly beneficial for psychological factors, as the studies concerning them mainly focus on the role of various personality traits, optimism, self-efficacy, self-esteem, placement of health control or methods of dealing with stress in the prediction of healthy lifestyle and assessment of own health (Dolińska-Zygmunt, 2000; Mulkana, Hailey, 2001; Spear, Kulbok, 2001; MacNicol and others., 2003; Kasapoglu, Cabuk, 2006; Ziarko, 2006; Finogenow, 2008; Kaflik-Pieróg, Zadworna-Cieślak, 2010; Zadworna-Cieślak, Ogińska-Bulik, 2012).

Whereas, it is after all the family, the socialization process, that have the greatest impact on the adaptation of health habits by children, including habits related to physical activity, proper diet or hygiene, that gradually transform, with the participation of personality traits, into intentional actions aimed at pro-health objectives. As assumed by the model of family forming of health behaviors, for the children it's the parents that represent model health behaviors and also provide guidelines and standards related to their implementation and management (Gaweł, 2006). The period of adolescence is particularly important for this process, as this is the period when health behavior patterns stabilize. Forming incorrect health behaviors in this period can lead to negative health consequences in adulthood, such as heart conditions or tumors.

For the discussed scope, studies covering collective impact of family-related and psychological factors in health behavior prediction are scarce. This is because most of the studies follow the impact of individual factors on health-related behaviors (Juczyński, 1997; Dolińska-Zygmunt, 2000; Łuszczyńska, 2004; Ziarko, 2006). However, in reality we deal with an interaction of psychological and family factors related to prediction of health behaviors, which is demonstrated in more and more scientific reports and studies (Zadworna-Cieślak, Kaflik-Pieróg, 2010; Zadworna-Cieślak, Ogińska-Bulik, 2011). Therefore, we are dealing with an interaction between people and the environment, where the individual constitute an intermediate element in the relations between the individual and the environment (Howell and others, 1995; Johnson, 1995, quoting after: Juczyński, 2001). This paper tries to collectively present both groups of factors related to determination of health behaviors of adolescents.

Objective

The purpose of performed studies was to establish the psychological and family determinants of health behaviors of adolescents. Two groups of factors were analyzed to find the key determinants from amongst various variables from both groups.

Researched Variables and Tools for Measuring Them

Health behaviors were the dependent variables of the performed studies. According to the literature, following were included into the group of independent variables:

– Psychological variables, individual variables (sense of coherence, valuation of health by adolescents, experienced support from parents, perceived parental attitudes); these variables were researched based on the declarations of adolescents.

– Family variables (health behaviors of parents, valuation of health by parents); these variables were researched based on the declarations of parents.

Such sociodemographic variables as age, gender and economic status were also controlled.

In order to study health behaviors of adolescents (dependent variables) and their parents (independent variables) I have used Health Behaviors Inventory by Juczyński (2001). The tool contains 24 statements describing different types of behaviors using a scale from 1 (“almost never”) to 5 (“almost always”). After adding up the frequencies of individual one can determine the general index of health behaviors and the intensity level of four types of behaviors i.e. correct dietary habits, preventive behaviors, health practices and positive attitude. The higher/lower the result the higher/lower the intensity of declared behaviors.

Correct dietary habits take into consideration mainly the type of food (e.g. wholegrain bread, fruits and vegetables), preventive behaviors mainly concern following health recommendations and obtaining information on health and sickness, health practices include habits related to sleep, recreation or physical activity, whereas positive mental attitudes are related to avoiding too strong emotions, tensions and stresses. The tool achieved satisfactory psychometric parameters.

Furthermore, following instruments were used for the measurement of dependent variables:

– Sense of Coherence Questionnaire (SOC-29), author: A. Antonovsky; Polish adaptation: J. Koniarek, B. Dudek, Z. Makowska (1993). The tool enables to measure adolescent sense of coherence and its three dimensions: feeling of comprehensibility, resourcefulness and feeling of sense,

– List of Personal Values (LWO), author: Z. Juczyński (2001). This method was used to measure the position of health in hierarchy of values, both for adolescents and their parents,

– Scale of Social Support (SWS), author: K. Kmiecik-Baran (2000). The scale was used to measure the overall level of support received from each of the parents and four types of support: emotional, evaluative, instrumental and informational,

– Scale of Parental Attitudes – version for adolescents (SPR), author: M. Plopa, (2005). The tool enables measurement of perceived parental attitudes of father and mother, such as acceptance-rejection, excessively demanding, autonomy, inconsequent, excessively protective,

– Demographic survey – used for measurement of sociodemographic variables, i.e. age, gender, material status.

Test Group

The tests were performed on a group of 220 full families. Each tested family consisted of both parents and an adolescent child, therefore 660 people were subject to tests in total. The group of tested adolescents consisted of 107 boys (48,6% of the group) and 113 girls (51,4% of the group). The tested adolescents was between 17 and 19 years of age (M = 18,02; SD = 0,53). The mothers of tested adolescents were between 37 and 56 years of age (M = 45,32; SD = 4,35), whereas the fathers were between 37 and 64 years of age (M = 46,98; SD = 4,99). The tested individuals were selected from random Lodz secondary schools, and then layered selection was applied on the class (grade) selection stage. For a given class (grade) the students were tested together with their parents. The tests were carried out in groups, the tests were voluntary and anonymous. The teacher was absent from the classroom when questionnaires were filled in. After filling in their questionnaires the students received closed, and designated envelopes containing questionnaires for their parents (separate for the father and for the mother), which were returned to the persons performing the tests once they were filled in by parents. Test sets for individual families were coded, which enabled connecting the results of children with the results of parents.

Test Results

Health Behaviors of theTested Adolescents

Average results of the Health Behaviors Inventory were calculated in the initial stage of statistical analyses. The level of health behavior of adolescents was determined in respect to sociodemographic variables, such as age, gender and

socio-economic status. Analysis of health behaviors according to gender allowed to assign average results to norms for men and women. See Table 1 for results.

Table 1. Average and standard deviations of health behaviors in the tested group of adolescents according to gende

	Boys		Girls		Test t
	M	SD	M	SD	p
General index of health behaviors	70,96	12,22	74,96	12,26	-2,40 *
Correct dietary habits	16,06	4,22	18,43	4,28	-4,13 ***
Preventive behaviors	16,41	4,23	18,22	4,12	-3,21 **
Positive mental attitudes	19,18	4,31	19,29	4,32	-0,20 ni
Health practices	18,84	3,77	19,04	3,95	-0,39 ni

Source: Own work

The data contained in the table below, after comparing to norms (Juczyński, 2001) show that average results concerning the general index of health behaviors, both in the group of boy and girls, fall into the range of low results (4 sten). Additionally, means of detailed indexes of the Health Behaviors Inventory (correct dietary habits, preventive behaviors, positive attitude and health practices) are somewhat lower for the tested boys and girls than the values for different groups of men and women obtained by Juczyński (2001). When comparing the results for both genders one must stress that girls achieved higher scores of general index of health behaviors than boys ($p < 0,05$) and correct dietary habits ($p < 0,001$) and preventive habits ($p < 0,01$). This justifies the need for further statistical analyses, separately for the representatives of both genders.

The conducted variance analysis has shown that neither age ($F=0,91$; $p>0,05$) neither material status ($F=1,46$; $p>0,05$) did not differentiate intensity of general level of health behaviors in the group of tested adolescents.

Health Behavior Determinants

Step by step multiple regression analysis was used to establish the determinants of health behaviors. All analyzed variables were included into the regression equation, and separate analyses were performed for each category of health behaviors and representatives of both genders (due to differentiating role of the

gender in the scope of adopted health behaviors). See Table 2 and 3 for data concerning the determinants of general index of health behaviors.

Table 2. Determinants of general index of health behaviors in the group of boys

	R-quadrant	B	SE B	Beta	T	sig. T
Feeling of sense	0,15	0,32	0,12	0,24	2,65	0,00
Positive mental attitudes of mother	0,24	0,82	0,27	0,26	3,05	0,00
Valuation of health	0,28	1,28	0,57	0,19	2,25	0,03
Acceptance attitude of the father	0,32	1,84	0,08	0,20	2,24	0,03
Fixed value		30,44	6,26		4,86	0,00
$R = 0,56$, $R^2 = 0,32$, $F= 12,85$, $p < 0,001$						

Source: Own work

As the above data shows, the strongest determinant of health behaviors for the group of boys was the sense of coherence component – feeling of sense. This variable defines the variance of dependent variable in 15%. A lower predictive force (9%) was displayed by the category of mother's health behaviors – positive attitude. The level of health-related behaviors amongst adolescents increased as the level of aforesaid variables increased. The remaining variables presented small contribution to prediction of general index of health behaviors.

Table 3. Determinants of general index of health behaviors in the group of girls

	R-quadrant	B	SE B	Beta	T	sig. T
Feeling of resourcefulness	0,34	0,67	0,10	0,50	6,44	0,00
Preventive behaviors of the mother	0,42	0,75	0,22	0,23	3,33	0,00
Valuation of health	0,46	1,26	0,49	0,17	2,58	0,01
Acceptance attitude of the mother	0,50	0,25	0,07	0,27	3,60	0,00
Autonomous attitude of the father	0,53	-0,24	0,08	-0,22	-2,91	0,00
Mother's health practices	0,55	0,49	0,23	0,15	2,13	0,03
Fixed value		18,75	6,52		2,88	0,01
$R = 0,74$, $R^2 = 0,55$, $F =21,42$, $p < 0,001$						

Source: Own work

In comparison to the group of boys, the group of girls displayed greater general presence of all determinants in the prediction of health behaviors (55%). The strongest predictor proved to be the sense of coherence component – feeling of resourcefulness, independently determining the variation of dependent variable in 34%. The category of mother's health behaviors – preventive behaviors (R^2 = 0,08) – proved to be the next greatest determinant, from prediction strength viewpoint. The greater the feeling of resourcefulness experienced by girls and the stronger the pro-health behaviors presented by their mothers, the more positive were the behaviors aimed at preventing illness displayed by the girls. The remaining variables did not play a significant predictive role.

During further calculations the regression analysis for consecutive types of health behaviors, separately for boys and girls, was performed. To clearly display the data, the results of the analysis are shown in Charts 1-4. The determinant with greatest predictive strength were highlighted in the charts ($R^2 \geq 0,05$).

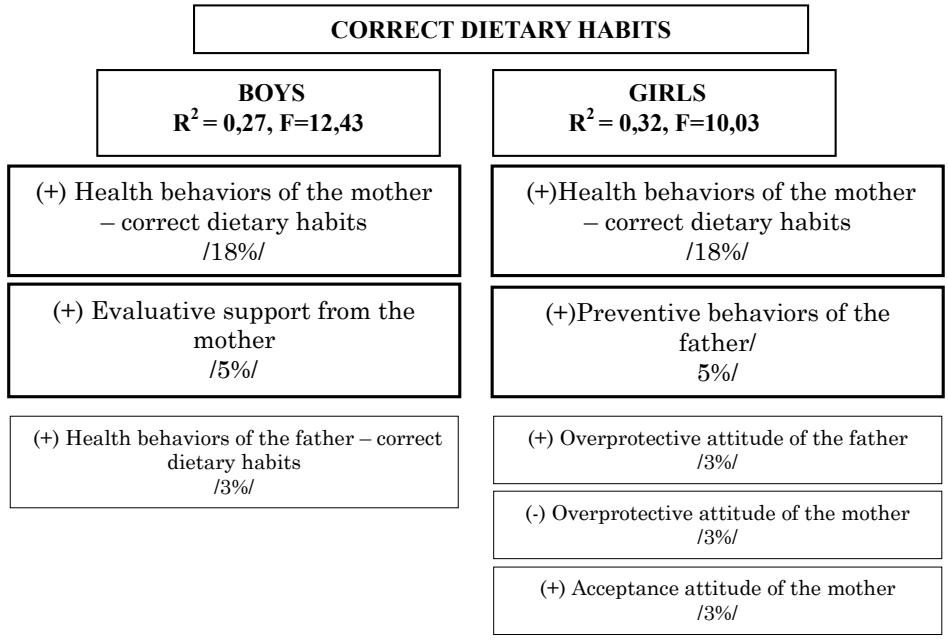

Chart. 1. Determinants of correct dietary habits

Source: Own work

The identical category of health behaviors of mothers – dietary behaviors – proved to be the strongest determinant in the scope of correct dietary habits for

both the group of boys and the group of girls. The more health-beneficial were the dietary habits of mothers the more pro-health were the dietary habits presented by their adolescent children. Evaluative support of mothers, in case of boys and preventive behaviors of fathers, in case of girls, had lower positive share in the prediction of dependent variable. The share of remaining determinants in the prediction of dietary behaviors was small.

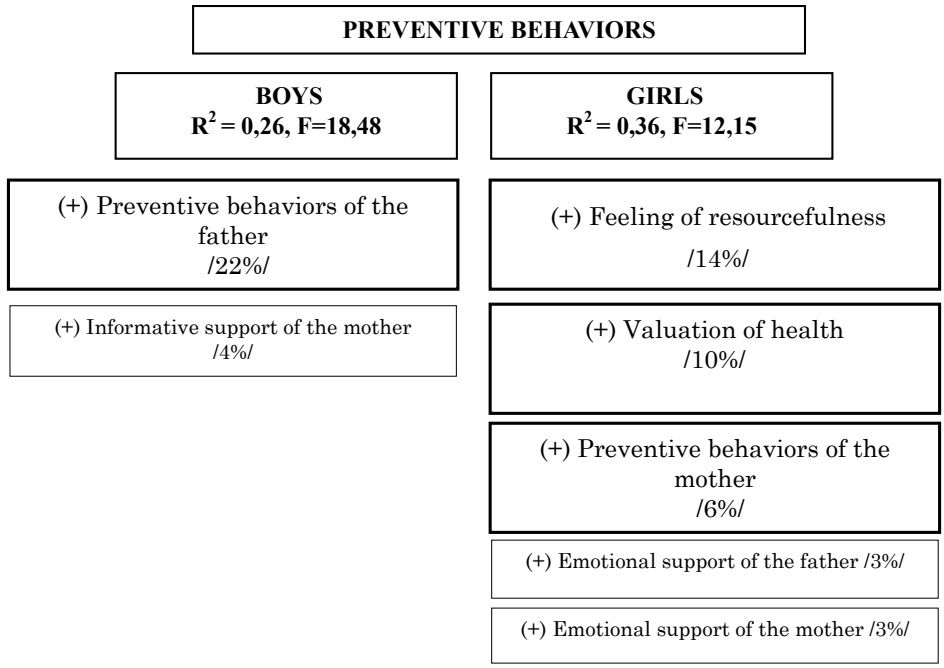

Chart 2. Determinants of preventive behaviors

Source: Own work

The preventive behaviors of father proved to be the strongest determinant of preventive behaviors in the group of boys. Whereas, with the group of girls the greatest predictive strength was displayed by the conviction about the availability of resources necessary to face the challenges of everyday life – i.e. the feeling of resourcefulness. The preventive behaviors of mother and valuation of health had smaller predictive significance. As the level of aforesaid variables increased so did the level of health-beneficial preventive behaviors with the tested adolescents. The remaining variables had insignificant impact on the prediction of dependent variable.

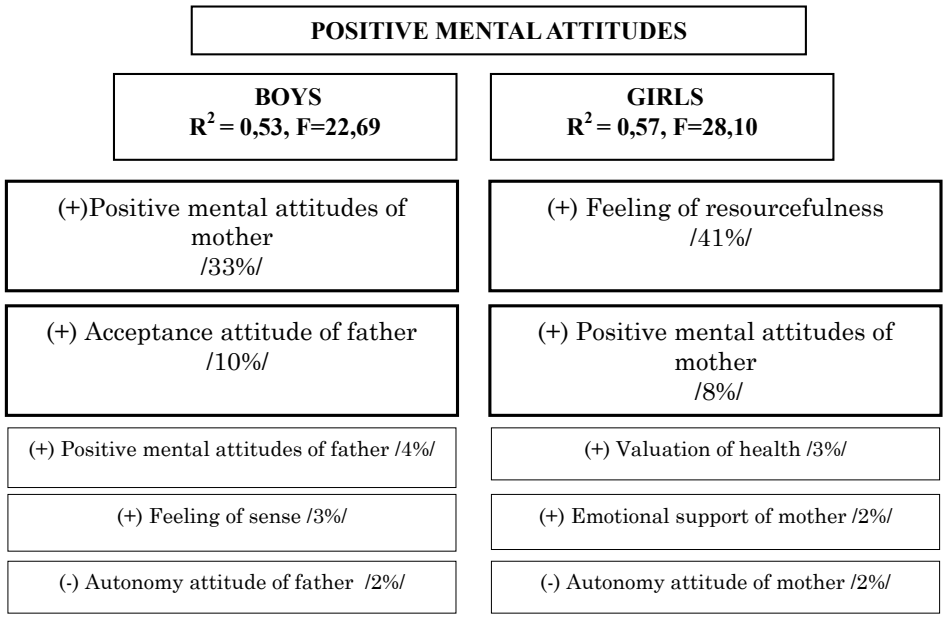

Chart 3. Determinants of positive mental attitudes

Source: Own work

In the category of behaviors concerning the area of mental health the regression analysis proved the strongest common prediction of analyzed determinants, both for the group of girls and boys (R^2>0,50). Positive mental attitudes in the group of boys mainly depended on identical category of the behaviors of mothers. Positive mental attitudes of mothers determined the variance of dependent variable independently in 33%. Father's acceptance behavior had smaller share in the prediction. Whereas in case of the girls it was the component of the sense of coherence – feeling of resourcefulness – which independently determined 41% of the variation of dependent variable. Predictive strength of mother's positive mental attitudes was smaller in the group of girls. The higher the level of established determinants the greater the positive attitude presented by the adolescents. The share of remaining determinants in prediction of dependent variable was insignificant.

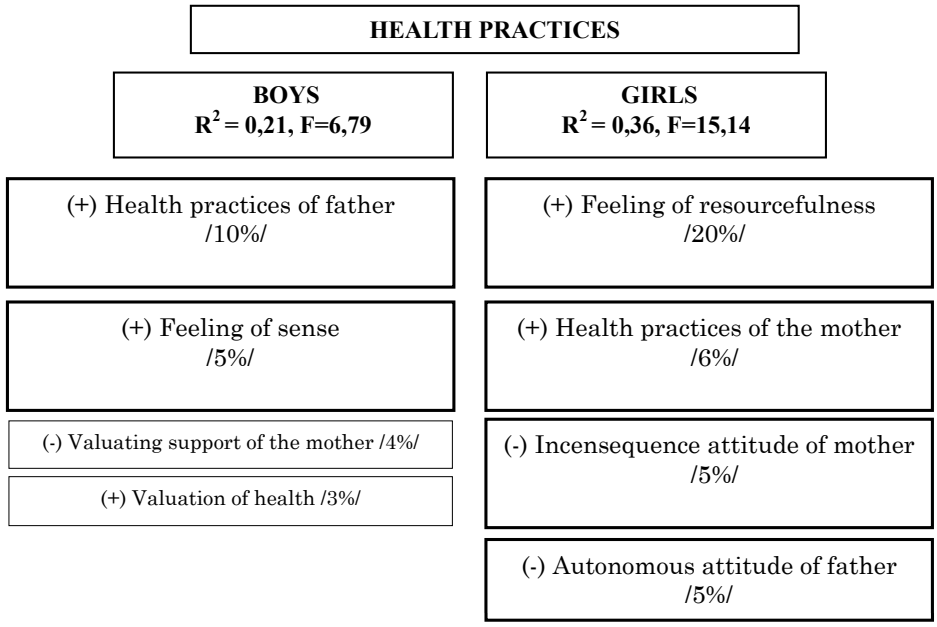

Chart 4. Determinants of health practices
Source: Own work

In the group of boys the strongest determinant of health practices were the similar behaviors of fathers. The felling of sense of boys also had smaller share in the prediction. The higher the level of both variables the better were the pro-health practices related to sleep or recreation presented by the tested boys. Predictive force of remaining variables proved to be insignificant.

In turn, the strongest predictor for the children was the component of sense of coherence – sense of resourcefulness. The remaining determinants, such as the inconsequent attitude and health practices of mothers, and autonomous attitude of father, displayed smaller predictive strength. Negative prediction was recorded for the later two determinants, i.e. the higher the level of inconsequence shown by mothers and autonomy presented by father, the less health-beneficial were the practices presented by their daughters.

Final Conclusions and Discussing the Results

According to the results of conducted tests one can form several most important conclusions:

– In comparison with the boys the girls generally display more pro-health behaviors, whereas other socio-demographic variables (age, material status) did not differentiate the intensity of dependent variables,

– Individual categories of health behaviors have different array of determinants,

– Determinants of healthy lifestyle are also different for the group of girls and the group of boys,

– The conducted analyses have confirmed the significant role of the sense of coherence in the forming of health behaviors for both girls and boys,

– In the group of boys the predictive role for health behaviors is related to the feeling of sense. Whereas in case of girls it is the pro-health importance is related to the conviction that resources needed to face the challenges are available nearby (feeling of resourcefulness),

– Once can also notice the significant role of the pro-health behaviors of parents (especially mother) in the prediction of health behaviors of children, often identical with the given category of health behaviors of adolescents,

– Psychological factors (especially the sense of coherence) play a more significant role in the prediction of health behaviors of girls, whereas the family-related factors seem to be more important for boys.

The tests conducted so far also indicate an unsatisfactory image of health-related behaviors in the groups of adolescents (Oblacińska, Woynarowska, 2006; Mazur and others, 2007; Sierosławski, 2007; Kolbowska, 2008; Mazur, Małkowska-Szkutnik, 2011). These studies also indicate that the lifestyle of girls is more pro-health than the lifestyle of boys.

More and more studies are conducted to discover psychosocial determinants of health behaviors. They point to the role of sense of coherence in the forming of health activity (Szołdra, 1999, quoting after: Heszen, Sęk, 2007; Zadworna-Cieślak, Gutowska-Wyka, 2009). Also other studies point out the most significant role of the feeling of sense and resourcefulness (Ziarko, 2006). As the role of the sense of coherence is the management of other resources, utilizing them when necessary or withdrawing from a situation when there are no chances for success (Pasikowski, 2001). Strong sense of coherence can increase the pro-health activity through managing resources necessary for completing the intended health action. It is the key intermediate factor between factors that impact the lifestyle of adolescents, although for the boys it is mainly the feeling of sense, whereas for the girls it is the sense of resourcefulness (Zadworna-Cieślak, Kaflik-Pieróg, 2010).

The conducted studies established a significant predictive role of the health behaviors of parents. In respect to individual categories of behaviors these were often identical types of behaviors of parents. Behaviors of mothers proved to be of key importance for the girls. In case of the group of boys, in respect to preventive behaviors and health practices, it was the health activity of the father that was more important. However, in respect to the general index of health behaviors, dietary behaviors and positive mental attitudes – similar behaviors of mothers also proved significant in the prediction of health activity of boys. It is after all the mother that has the strongest influence on health matters at home. Usually

it is the mother that takes care of the health of household members, by controlling and organizing health behaviors of other family members (Litman, 1974). Conclusions concerning the role of health behaviors of parents in the forming of the lifestyle of children are also confirmed by other studies (Becker, 1992, quoting after: Heszen, Sęk, 2007; Pearson and others, 2009; Zadworna-Cieślak, 2010; Zadworna-Cieślak, Ogińska-Bulik, 2011).

The conducted studies allow me to come to the conclusion that it is the components of the sense of coherence – resourcefulness, sense, comprehensibility and the health behaviors of children (especially behaviors of the mother) that have the key importance in the predicting health behaviors of adolescents. Going further, one can also notice the role of valuation of health in the process. Other studies show that attributing high value to health can reduce the risk of involvement in unhealthy behaviors and increase the tendency for health-beneficial behaviors (Norman, Bennet, 1996, quoting after: Juczyński, 2001; Zadworna-Cieślak, Ogińska-Bulik, 2011). In my own studies different types of parental support and observed parental behaviors had lower predictive importance in comparison to other determinants. However, one should point out the observed upbringing inconsequence on behalf of the mother – high level of this behavior has a negative impact on the forming of pro-health behaviors with adolescents. Whereas the negative dependence of father's autonomous attitude and health behaviors of adolescents – particularly in respect to health practices of the girls – can be surprising. Surpassingly, from the viewpoint of forming of very particular health habits (such as brushing the teeth, times of going to bed, type of consumed food), giving the adolescents complete freedom and the freedom of choice is not appropriate. More recommended is modeling by the parents and purposeful forming of pro-health behaviors and activities with their children. These conclusions display a similarity with the propositions of the theory of family forming of health behaviors, which among other things highlighted the role of "gatekeeper", i.e. the person controlling and supervising health-related activities in a family (Sallis, Nader, 1988). It is also a known fact that the acceptation of parents and providing children adequate support to children have a positive effect in the upbringing process, also in the health context. Other studies point out the indirect impact of those factors on different health behaviors, in particular through affecting the level of sense of coherence with adolescents (Zadworna-Cieślak, Ogińska-Bulik, 2011).

The obtained data gives premise for preventive actions in respect to forming of health behaviors of adolescents. They should mainly take into consideration the strengthening of the sense of coherence. This specifically applies to forming the conviction that life has a meaning and motivation towards overcoming the faced obstacles, and also the ability to notice and utilize available resources to rise up to challenges. Apart from the programs for children, the actions aimed at parents are also very important, and often omitted. They should be aimed at building a strong position of health in the hierarchy of values and strengthening the pro-health

convictions related to building a healthy lifestyle for the family. Behavior patterns and influence of the parents on children constitute the base of forming pro-health behaviors of young generations. The related health-promoting programs must be applied already on early stages of development of children. Health is a matter that involves the entire family, and it can be improved through activities that form with strong participation of family environment.

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