

The Impact of Family on Children's Attitude Toward Health

Elena I. Pervichko^{a*}, Irina M. Shishkova^{a,b}

^a *Lomonosov Moscow State University, Moscow, Russia*

^b *Ryazan State Medical University named after I.P. Pavlov, Ryazan, Russia*

* Corresponding author. E-mail: elena_pervichko@mail.ru

Background. Parents have a significant impact on the formation of their children's attitude toward health. A detailed study of this effect will allow us to devise strategies for interaction with children and directions of psychological correction of maladaptive behaviors in health issues.

Objective. To study the relationship between attitude toward health in primary-school-age children and their parents and styles of childrearing.

Design. The study comprised 69 primary-school-aged children and their parents. The method of "Unfinished Sentences About Health" and the questionnaire "Analysis of Family Relationships" were used. Components of attitude toward health such as health self-esteem, assessment of healthy people, diseases, health promotion actions, health promotion factors (causes), and the value of health were considered.

Results. The findings showed that the parents' components of attitude toward health are interrelated with those in children's at all levels (from behavioral to semantic and axiological) and are connected with the style of childrearing.

Conclusion. Data analysis showed the impact of the style of childrearing and the interrelation of certain parental attitude toward health components with attitude toward health in primary-school-age children. This problem requires detailed study due to its theoretical significance and the obvious social challenges it presents.

Keywords: health psychology; attitude toward health; children's health; family relationships; childrearing

Introduction

The increase of various chronic somatic diseases that are manifested in childhood is constantly being recorded in Russia, European countries, and the United States (Pashin, 2011). From the point of view of health psychology, one of the main reasons for this is health-related behavior among children: consumption of “unhealthy” food, lack of physical activity, failure to comply with a daily regimen, bad habits, etc. (Bosma, Van de Mheen, & Mackenbach, 1999). According to the ideas of the Russian psychological school, attitude toward health includes not only the content, differentiation, and integration of the entire system of cognitive health representations, but also emotions regarding health and sensations that label well-being as healthy and/or unpainful (Kolesnikova, 2003).

Attitude toward health can be considered as a holistic system that acquires completeness together with a reflective sense of health in the development of the subject (Nikolaeva & Arina, 2009). The formation of children’s attitude toward health and health behavior is connected with different factors, including their experience of disease, stage of age development, and specific social development situation. The cultural-historical approach in psychosomatics maintains that the substantive aspects of the attitude toward health are mostly set by the specificity of the child’s social situation (Arina, Iosifyan, & Nikolaeva, 2018; Arina & Nikolaeva, 2016). This point of view is presented in many studies in Russia, the United States, and European countries (e.g., Anan’ev, 1998; Birch & Davison, 2001; Filatov & Vasilyeva, 2001).

According to numerous studies, some of the leading psychological factors in the development of attitude toward health include the parents’ attitude toward health, which is conveyed to the child, as well as the style of childrearing (Biddle, Gorely, & Stensel, 2004; Lau, Hartman, & Ware, 1986; Patock-Peckham, Cheong, Balhorn, & Nagoshi, 2001; Salkind, 2006; Tinsley, 2002). Empirical studies confirm the significant similarity between parents’ and their children’s ideas about health. Children with physiologically unexplained pain often have family members who are frequently ill and are extremely susceptible to even mild ailments or child complaints (worry about the child’s complaints). Studies suggest a higher probability of smoking habits among children whose parents smoke (Chassin, Presson, & Sherman, 2005). Obese parents are more likely to have obese children (Danielzik, Czerwinski-Mast, Langnäse, Dilba, & Müller, 2004), and children of parents who abuse alcohol and psychoactive substances are more susceptible to alcoholism and drug addiction (Li, Pentz, & Chou, 2002). It also has been shown that parental eating behavior and physical activity affect the behavior of their children in these areas (Leventhal, Prochaska, & Hirschman, 1985). The study by Wilkinson (2002) shows that from the age of eight, a child is aware of how the parent relates to his/her health or illness. Children who spent more time with their parents and close relatives up to the age of 16 are less likely to smoke and try drugs (Tinsley, 2002). We associate these facts with a stronger attachment to the parents on the part of these children. Attachment and mastering of healthy behavior in parental families can be considered as the most powerful protective factors for a number of forms of risky behavior in children and adolescents (Fonagy & Target, 2000). In general, the data point to the need to take into account the parents’ ideas about health and illness and their health-related behavior, especially when attempting to encourage healthy behavior in children and adolescents (Berezovskaya, 2005).

The purpose of this research was to study the relationship between attitude toward health in primary-school-age children and their parents and styles of child-rearing.

Methods

Participants

The study comprised 69 participants (33 children aged 7–11 years and 36 parents aged 32–54 years). The “infection index” is used as a criterion for frequently ill children in Russia. This index is defined as the ratio of the sum of all cases of acute respiratory infections during the year, to the child’s age. An infection index of 0.2–0.3 is found in rarely ill children and 1.1–3.5 in frequently ill children.

Our experimental group included 15 frequently ill children, and the control group – 18 rarely ill children. Four groups of study participants were identified: (1) frequently ill children – 15 participants (mean age 9 ± 1.8); (2) rarely ill children – 18 participants (mean age 9 ± 1.4); (3) parents of frequently ill children – 15 participants (mean age 43 ± 11); (4) parents of rarely ill children – 18 participants (mean age 43 ± 11).

Participation was voluntary and the participants were first presented with an informed consent document, which explained the purpose of the study and the confidentiality of the results.

Procedure

Questionnaires

We used the method of “Unfinished Sentences About Health” (Yakovleva, 2014) for both children and parents, constituting 10 open-ended statements on the topic of health, allowing us to identify components of attitude toward health in our study sample (see *Table 1*). The questionnaire “Analysis of Family Relationships” (Eidemiller & Justickis, 1990) consists of 130 statements (containing 20 dimensions), relating to the upbringing of children, allowing us to explore features of childrearing and unharmonious family relations (see *Table 2*).

The results of the method “Unfinished Sentences About Health” were processed using the method of content analysis by two clinical psychologists, including a candidate of psychological sciences. The specialists did the analysis separately and then combined the data. The procedure included the following steps: putting forward analytical units and combining them into categories based on the analyzed material (open answers), then the frequency of responses among the sample groups was calculated. For example, an answer such as “I always knew that my health is good/strong” is related to “positive health assessment”; “To improve my health, I play sports/eat healthy food” – to “readiness for action”, etc.

Counting “yes/no” answers allows us to identify one or more of the 20 dimensions (for example, “hyperprotection”, “hypoprotection”, “indulging”), where the result exceeds the norm (Eidemiller & Yustickis, 1999). There were no parents in our samples whose answers exceeded the norm scores on any of the dimensions except “hyperprotection” (16 parents) and “hypoprotection” (12 parents). Therefore, we chose these parameters for further analysis.

Table 1

The method of "Unfinished Sentences About Health" (Yakovleva, 2014) and sample responses

No.	Statement	Sample responses (children)	Sample responses (parents)
1.	I always knew that my health...	"is good", "is bad", "is strong", "is the most important thing", "is normal"	"is good", "is bad", "is strong", "is the most important thing", "is normal"
2.	Most healthy people...	"are happy", "are good", "play sports", "take care of their health", "are strong"	"are happy", "eat healthy food", "take care of their health", "are physically trained", "are active and energetic"
3.	Disease is...	"bad", "a punishment", "a trouble", "a virus", "when you feel bad", "an infection", "pain"	"bad", "a punishment", "pain"
4.	If I knew more about ways to stay healthy...	"I would be constantly healthy", "I would follow them", "I would not be sick"	"I would follow them", "I would do nothing", "I would be constantly healthy"
5.	The main thing on which human health depends is...	"habits", "lifestyle", "nutrition", "sports", "environment", "genetics"	"genetics", "lifestyle", "the brain", "environment", "positive view of life"
6.	People who are actively engaged in their health, cause me...	"respect", "admiration", "joy", "nothing", "envy"	"respect", "interest", "to smile"
7.	To improve my health, I...	"play sports", "eat healthy food", "do nothing", "run", "visit doctors", "everything is already good"	"gave up smoking", "run", "visit doctors", "don't drink alcohol"
8.	My health won't let me...	"eat junk food", "exercise", "have bad habits", "walk outside without a hat", "allows everything"	"work a lot", "run", "have bad habits", "fly into space"
9.	People think that health...	"is important", "needs to be protected", "is the most important thing in life"	"is important", "needs to be protected", "is the most important thing in life"
10.	... depends on health.	"A person's whole life", "Everything", "A person's whole destiny", "Happiness", "Physical well-being", "Psychological well-being"	"Quality of life", "Physical well-being", "Psychological well-being", "Everything", "My whole life"

Table 2

The questionnaire "Analysis of Family Relationships" (Eidemiller & Justickis, 1990) and sample data

Dimensions	Sample questions	Cut-off value	Average values of the parents sample
Hyperprotection	Everything I do, I do for my son (daughter).	6	7.13
Hypoprotection	I often do not know what my child is doing at the moment.	7	7.97
Indulging	If my child likes a toy, I will buy it, no matter how much it costs.	7	1.78
Ignoring the needs of the child	I do not like it when my son (daughter) requests something. I know better what he (she) wants.	3	0.50
Excessive duties	My son (daughter) often has to (or previously had to) look after the younger brother (sister).	3	1.21
Insufficient obligations	I often remind my son (daughter) several times about the need to do something, and then I will do it myself.	3	1.73
Excessive requirements/ prohibitions	The main thing parents should teach their children is to obey adults.	3	0.97
Insufficient requirements/ prohibitions	My child decides himself how much, what, and when to eat.	2	0.39
Excessive requirements	The stricter parents are with the child, the better for him.	3	1.15
Minimal requirements	Many shortcomings in my child's behavior will go away by themselves with age.	3	2.55
Instability of parenting style	Members of our family are not equally strict with our son (daughter). Some indulge, others are very strict.	4	0.86
Expanding the sphere of parental feelings	I would like my son (daughter) not to love anyone but me.	5	1.42
Preference for the teenager to have a child's qualities	It upsets me that my son (daughter) is quickly becoming an adult.	3	0.78
Lack of confidence in parenting	If the child is stubborn because he does not feel well, it is better to do everything he wants.	4	2.13
Phobia of losing a child	I am constantly worried about the health of my son (daughter).	5	1.07
Underdevelopment of parental feelings	If I had no children, I would have achieved much more in my life.	6	0.84

Table 2 (continued)

Projection of own qualities on the child	Some very important shortcomings of my son (daughter) persist, despite everything I do.	3	1.34
Bringing marital conflicts into the sphere of childrearing	It often happens that when I punish my son (daughter), my husband (wife) immediately begins to reproach me for excessive severity or indulgence toward him (her).	3	0.21
Dimension of preference of female qualities	A man understands the feelings of another person worse than a woman does.	3	1.13
Dimension of preference of male qualities	A woman understands the feelings of another person worse than a man does.	3	0.26

For statistical processing we used the Fischer criterion of angular conversion (f^*), which was used to compare the two samples by frequency of response categories. Calculations were made using SPSS Statistics 17.0.

Results

The results of the method “Unfinished Sentences About Health” allowed us to categorize the data. The respondents’ answers were divided into the following categories by the content analysis method: *health self-esteem, assessment of healthy people, diseases, health promotion actions, health promotion factors (causes)*, and *the value of health*, which are similar in the groups of children and their parents. For example, responses to the first statement correspond with participants’ assessment of their own health (positive, negative, or neutral) and subjective health value, (“My health is the most important thing”) (for both children and parents). Similarly, responses such as “A person’s whole life depends on health” give us an opportunity to distinguish “the value of health” category and mark health as an absolute value (for both children and parents). Only among the parents did we see the answer “Quality of life”. In the category “Diseases”, both children and parents answers fall into the category of “objective definition” or “emotional evaluation”. Answers such as “If I knew more about ways to stay healthy, I would do nothing” or “...I would follow them” are sorted into the category “Health promotion actions” and its variants “Readiness for action” or “Lack of readiness for action” (only in parents). Answers like “I would not be sick” or “I would constantly be healthy” in the category “Abstract plans” are seen in all sample groups.

After defining six response categories, we analyzed the frequency of occurrence of response categories in groups of frequently ill and rarely ill children (see *Table 3*).

The first ranking of both frequently and rarely ill children is positive self-assessment of health (73.3% and 55.5%, respectively); however, in the group of frequently ill children, this assessment is significantly more frequent ($p \leq 0.01$). However, these children are objectively more often ill and have poor health; we can explain their high health self-esteem by defense mechanisms, for example, repression or denial. Frequently ill children consistently less often emphasize the subjective importance of health than do rarely ill children (33.3% vs. 13.3%, $p \leq 0.01$), and the

Table 3

Frequency analysis of health attitudes in groups of frequently ill and rarely ill children, according to the method "Unfinished Sentences About Health" (%)

Response categories	Frequently ill children, N = 15	Rarely ill children, N = 18	Significance of differences
Health self-esteem			
Positive health assessment	73.3%	55.5%	$p \leq 0.01$
Negative health assessment	13.3%	11.1%	$p > 0.05$
Subjective health value	13.3%	33.3%	$p \leq 0.01$
Neutral health assessment	0%	0%	–
Assessment of healthy people			
Positive assessment	46.6%	11.1%	$p \leq 0.01$
Negative assessment	13.3%	0%	–
Life quality assessment	13.3%	33.3%	$p \leq 0.01$
Action assessment	26.6%	44.4%	$p \leq 0.01$
Other	0%	11.1%	–
Diseases			
Objective definition	46.6%	66.6%	$p \leq 0.01$
Emotional evaluation	53.3%	33.3%	$p \leq 0.01$
Health promotion actions			
Readiness for action	53.3%	61.1%	$p > 0.05$
Abstract plans	46.6%	38.8%	$p > 0.05$
Lack of readiness for action	0%	0%	–
Health promotion factors (causes)			
Action (healthy lifestyle)	60%	38.8%	$p \leq 0.01$
Environment	20%	16.6%	$p > 0.05$
Congenital physical properties	20%	44.4%	$p \leq 0.01$
Value of health			
Absolute value	80%	83.3%	$p > 0.05$
Mental condition	13.3%	5.5%	$p \leq 0.01$
Physical condition	6.6%	11.1%	$p > 0.05$
Quality of life	0%	0%	–

Note. The percentage was calculated as frequency of a response among the sampled group.

child may perceive the disease as a “challenge”, so he/she has to overcome difficulties and learn to deal with them. In this case, health may not be perceived by the child as the main value due to the need to build a personal hierarchy of values, putting in the first place indicators that are more accessible for the child. Frequently ill children in 60% of cases emphasize the importance of actions to maintain their own health. The frequency of responses of this type in the group of frequently ill children is significantly higher than in the group of rarely ill children (60% vs. 38.8%, $p \leq 0.01$). Rarely ill children note the congenital physical properties of a person (genetics, immunity) as a major factor in health. Here we can note that

the first category of children is much more often faced with the need to improve their health, which is emphasized by parents and the school environment as a significant value. Frequently ill children reveal their idea of the disease through an emotionally intense assessment (“bad”, “terrible”, “nightmarish”). The frequency of such assessments in the group of frequently ill children significantly exceeds that in the group of rarely ill children (53.3% vs. 33.3, $p \leq 0.01$), whereas for rarely ill children, the description of the disease through its objective definition (66.6%) is typical. This distinction may be related to the discomfort caused by diseases and the personal emotional reaction to them in frequently ill children. Children of both groups with the highest frequencies of answers note the paramount importance of health for a person’s life (83.3% vs. 80%, $p > 0.05$).

Table 4

Health attitudes in groups of frequently ill children and their parents, according to the data of the “Unfinished Sentences About Health”(%)

Response categories	Frequently ill children, N = 15	Parents of frequently ill children, N = 15	Significance of differences
Health self-esteem			
Positive health assessment	73.3%	40%	$p \leq 0.01$
Negative health assessment	13.3%	20%	$p > 0.05$
Subjective health value	13.3%	26.6%	$p \leq 0.01$
Neutral health assessment	0%	13.3%	-
Assessment of healthy people			
Positive assessment	46.6%	0%	-
Negative assessment	13.3%	0%	-
Life quality assessment	13.3%	80%	$p \leq 0.01$
Action assessment	26.6%	13.3%	$p \leq 0.01$
Other	0%	6.6%	-
Diseases			
Objective definition	46.6%	86.6%	$p \leq 0.01$
Emotional evaluation	53.3%	13.3%	$p \leq 0.01$
Health promotion actions			
Readiness for action	53.3%	46.6%	$p > 0.05$
Abstract plans	46.6%	26.6%	$p \leq 0.01$
Lack of readiness for action	0 (0%)	26.6%	-
Health promotion factors (causes)			
Action (healthy lifestyle)	60%	33.3%	$p \leq 0.01$
Environment	20%	20%	$p > 0.05$
Congenital physical properties	20%	46.6%	$p \leq 0.01$
Value of health			
Absolute value	80%	80%	$p > 0.05$
Mental condition	13.3%	6.6%	$p \leq 0.01$
Physical condition	6.6%	0%	-
Quality of life	0%	13.3%	-

Another comparative analysis shows the frequency of responses of frequently ill children and their parents (see Table 4).

We observe similarities in the responses of children and their parents in the categories health promotion actions, impact of the environment on health, and recognition of health as the main value ($p > 0.05$). In 80% of cases, children and their parents call health the main value of an individual, and this significantly exceeds the answers of all other types. Comparative analysis shows us the frequency of responses of rarely ill children and their parents (see Table 5).

We can see that the answers of the rarely ill children and their parents and of the frequently ill children and their parents coincide for the same evaluation

Table 5

Health attitudes in groups of rarely ill children and their parents, according to the data of the "Unfinished Sentences About Health" (%)

Response categories	Rarely ill children, N = 18	Parents of rarely ill children, N = 18	Significance of differences
Health self-esteem			
Positive health assessment	55.5%	38.8%	$p \leq 0.01$
Negative health assessment	11.1%	5.5%	$p > 0.05$
Subjective health value	33.3%	33.3%	$p > 0.05$
Neutral health assessment	0%	22.2%	-
Assessment of healthy people			
Positive assessment	11.1%	0%	-
Negative assessment	0%	0%	-
Life quality assessment	33.3%	61.1%	$p \leq 0.01$
Action assessment	44.4%	33.3%	$p > 0.05$
Other	11.1%	0%	-
Diseases			
Objective definition	66.6%	83.3%	$p \leq 0.01$
Emotional evaluation	33.3%	16.6%	$p \leq 0.01$
Health promotion actions			
Readiness for action	61.1%	72.2%	$p > 0.05$
Abstract plans	38.8%	5.5%	$p \leq 0.01$
Lack of readiness for action	0%	22.2%	-
Health promotion factors (causes)			
Action (healthy lifestyle)	38.8%	55.5%	$p \leq 0.01$
Environment	16.6%	16.6%	$p > 0.05$
Congenital physical properties	44.4%	27.7%	$p \leq 0.01$
Value of health			
Absolute value	83.3%	22.2%	$p \leq 0.01$
Mental condition	5.5%	33.3%	$p \leq 0.01$
Physical condition	11.1%	0%	-
Quality of life	0%	44.4%	-

parameters in the case of health promotion actions and the connection between the environment and health. Analysis of the data also showed that in the groups of parents, the parameter “Quality of life” appears in both groups. When describing the significance of health for a person’s life, they indicate health as the main reason for a high quality of life. Answers of this type were not typical for children, which can be explained by their age and cognitive abilities.

The results of the “Analysis of Family Relationships” method showed that parental groups of both children’s groups are characterized by an absolute increase of the “Hyperprotection” (G+) and “Hypoprotection” (G-) dimension in comparison with the values on all other dimensions of the method (for the G+ $p = 0.03$, for the G- $p = 0.02$). Therefore, we chose these parameters for further analysis.

According to the G+ dimension, the indicators were increased in 16 parents (48%), among whom 8 were parents of frequently ill children and 8 were parents of rarely ill children; on the dimension G- in 12 people (36.3%): 6 parents of frequently ill children and 6 parents of rarely ill children. Parent-child pairs with the G+ and G- styles of childrearing were analyzed by coincidence of their responses in categories of attitude to health: We looked at whether the response categories of the children and their parents matched (see Table 6).

Table 6

Frequency of coincidence in parents’ and children’s answers in the method of “Unfinished Sentences About Health” (in families with hyper- and hypoprotection)

Response categories	G+, N=16	G-, N=12	Significance of differences
Health self-esteem	0%	0%	-
Assessment of healthy people	81.2%	58.3%	$p \leq 0.01$
Diseases	75%	75%	$p > 0.05$
Health promotion actions	62.5%	83.3%	$p \leq 0.01$
Health promotion factors (causes)	75%	83.3%	$p > 0.05$
Value of health	100%	0%	-

Note. G+ = Hyperprotection. G- = Hypoprotection

For parents displaying hyperprotection to a greater degree than for parents with hypoprotection, the coincidence of evaluation of healthy people with that of their children is typical (81.2% vs. 58.3%, $p \leq 0.01$). Awareness of the value of health coincides in this sample in 100% of cases, while for hypoprotection this component does not correspond with children’s answers (0% matches). This can be explained by the particular features of hyperprotection as a style of childrearing, which involves constant close contact with the child.

We can also see that in these samples the self-assessment of children’s health is not related to the style of childrearing. This may be explained by the fact that the child’s self-assessment in general (and self-assessment of health in particular) may also be significantly connected with his/her personal characteristics, social environment, success in educational or sports activities, and other factors.

Discussion

The aim of our study was to identify the relationship between childrearing and parents' attitude toward health and attitude toward health in primary-school-age children. We found that frequently ill children have a high level of self-esteem regarding their own health, which is inconsistent with the data of Arina and Kovalenko (1995) and Sokolova (2009), who found low self-esteem and a feeling of inferiority. This contradiction can be explained by the action of the defense mechanisms, such as repression or denial, in the groups of children studied. It is also possible that the children strove to show themselves in the best light, which may have influenced their answers. Good health may be considered as socially approved in this group of children. At the same time, a high level of self-esteem regarding their health among frequently ill children was found in the study by Romantsov, Silaev, and Melnikova (2016). The authors explained this by the phenomenon of high stress-resistance in this category of children.

We also obtained evidence that such childrearing styles as hyperprotection and hypoprotection are connected with the attitude to health of primary-school-age children, which substantiates the data of Hartup and Stevens (2002), who argue that the patterns of health and health preserving behavior in children are a manifestation of the health-preserving behavior of their parents.

Frequently ill children note the subjective significance of their health to a much lesser extent than their rarely ill peers do. We can say that in the hierarchy of values of the former group of children other indicators take the first place, and allow the child to adapt to the state of his/her health. We found that both frequently and rarely ill children recognize health as the main value; however, Gokhman (2002), when exploring the motivation of health promotion in childhood, noted that health for children under the age of 9 is not a conscious value and priority. In our study, there were no significant differences in the definition of health value in children aged 7 to 11 years.

However, our finding that the high representation of answers about the importance and value of health is typical only for parents of rarely ill children is more interesting. It may be assumed that, on the one hand, for parents of rarely ill children, health is a significant value and occupies a high rank in the value structure (the category "Quality of life" in this case falls into the category of "Absolute value"). On the other hand, it is possible that the high subjective value of health revealed in the group of rarely ill children (33.3%) is associated with the high value placed on health by their parents. The selection of the "Quality of life" category indicates the high significance of health and the cognitive features of this group of subjects. The diversity of parents' answers indicates a greater differentiation in the structure of values, including the value of health. We can conclude that the structure of values of parents of frequently ill children is less differentiated than that in parents of rarely ill children. This may reflect the subjective experience of frequent illnesses of their children and the high value placed upon health in this regard.

Thus, our data showed that the components of children's attitude toward health are interconnected with those of their parents at all levels (from behavioral to semantic and axiological), which suggests that the parental environment has a significant impact on the formation of attitude toward health of the child. Parental attitudes and behavior become an example and behavioral model for the child.

Conclusion

We have identified in this study the importance of the style of childrearing and parents' attitude toward health for attitude toward health in primary-school-age children. Many studies support this hypothesis, but we have identified our own categories of attitude toward health: health self-esteem, assessment of healthy people, diseases, health promotion actions, health promotion factors (causes), and the value of health, which are interconnected with those in their parents at all levels – from behavioral to semantic and axiological. This could be helpful in a more detailed study of attitude toward health in children and adults aimed at competent and timely correction of maladaptive behaviors in health issues. This problem requires further detailed study due to its theoretical significance and the obvious social challenges it presents, and the fact that existing studies in the field of health psychology do not currently provide us with sufficient empirical knowledge about the process of shaping attitudes to health and its components. To continue studying children's attitude toward health and the factors connected with their development, we are conducting a study comparing the development of children's and adolescents' attitude toward health. The data obtained in the present study open up prospects for further research in this direction, and could be considered during implementation of preventive measures regarding health issues among children and their parents.

Limitations

Due to the open-ended questions of the “Unfinished Sentences About Health” method, namely, we can say that other possible study participants might have given different answers, which would have led to the selection of other or different categories of answers in the content analysis. In addition, further studies should include a larger number of subjects to allow a more detailed analysis of the results.

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