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Knowledge and practices of teenagers about health: implications for the lifestyle and self care

Saberes e práticas de adolescentes sobre saúde: implicações para o estilo de vida e cuidado de si

Saberes y prácticas de adolescentes sobre salud: implicaciones para el estilo de vida y el cuidado de si

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Abstract

Objective: This study aimed to describe the knowledge of adolescents about health and what they do to remain healthy and promote their own health. **Methods:** Qualitative research, whose benchmark is the Theory of Social Representations. The subjects were 21 adolescents who were approached with the help of the Snowball technique. There were semi-structured interviews and the analysis of the thematic content was applied. **Results:** The results show that health is understood in the light of elements of the biomedical paradigm and the social production of health, and the practices are aligned with the requirements of each of the paradigms. **Conclusion:** It is concluded that adolescents have knowledge about their health and about the problems that may result from bad habits, which are more associated to such cultural practices than to actual information.

Keywords: Adolescent; Health; Nursing Care.

Resumo

Objetivo: Descrever os saberes de adolescentes sobre a saúde e o que fazem para se manterem sadios e promoverem a própria saúde. **Métodos:** Pesquisa qualitativa, cujo referencial é a Teoria das Representações Sociais. Os sujeitos foram 21 adolescentes, captados pela técnica Bola de Neve. Realizaram-se entrevistas semiestruturadas e aplicou-se a análise de conteúdo temático. **Resultados:** Os resultados mostram que a saúde é entendida à luz de elementos do paradigma biomédico e da produção social da saúde e as práticas se alinham aos requisitos de cada um desses paradigmas. **Conclusão:** Conclui-se que os adolescentes têm conhecimentos sobre sua saúde e sobre os problemas que os maus hábitos podem acarretar, estando a questão ligada mais à cultura de tais práticas do que propriamente à informação.

Palavras-chave: Adolescente; Saúde; Cuidados de Enfermagem.

Resumen

Objetivo: Describir los saberes de los adolescentes sobre la salud y qué hacen para que se mantengan saludables. **Métodos:** Investigación cualitativa, cuyo referencial es la Teoría de las Representaciones Sociales. Los sujetos fueron 21 adolescentes, captados por la técnica bola de nieve. Se realizaron entrevistas semiestructuradas y se aplicó el análisis de contenido temático. **Resultados:** Los resultados muestran que la salud es entendida a la luz de elementos del paradigma biomédico y de la producción social de la salud y las prácticas se alinean a los requisitos de cada uno de eses paradigmas. **Conclusión:** Se concluye que los adolescentes tienen conocimientos sobre su salud y sobre los problemas que los males hábitos pueden traer, estando la cuestión más relacionada a la cultura de tales prácticas que propiamente a la información.

Palabras-clave: Adolescente; Salud; Atención de Enfermería.

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INTRODUCTION

In chronological terms, adolescence is understood as the age between 10 and 19 years and is divided in two phases: from 10 till 14 years and from 15 till 19 years[1]. Adolescents are a priority group for health promotion around the world, due to the behaviors that expose them to different situations that represent health risks.

During this transition period from childhood to adult life, intense cognitive, emotional, social, physical and hormonal transformations take place. The autonomy and independence from the family increase and new behaviors and experiences are tried out[2]. The adolescents start to establish their relations, which directly influence their health. They aim to construct their identities, including concerns with the construction of their body images[3].

Body esthetics is closely linked with good health. Current concerns with physical shape and health illustrates the importance the body has gained in the modern construction of identities, with individual physical characteristics playing a determinant role in that construction. Today, the frequent usual mentioning of biomedical indices, mood changes, guided diets and specific physical exercises demonstrate this application of the value attributed to the body, revealing the bodily ideals that are to be aspired to in the establishment of individual identities[3].

Nowadays, both professional education and institutional organization have focused on the peculiarity of the "adolescent being". This phase entails extensive demands for care, not only actual physical care, but care implied in the construction of knowledge, habits, personality in different areas.

In that sense, it is important to encourage the adolescents to become active subjects of their care, which becomes possible through the implementation of health education measures aimed at preventing problems. Therefore, this group's health needs should be identified, as well as the adolescents' reflections on their own health and that of the people around them, the representations of health they establish and how these are manifested in daily life.

For the health professionals to elaborate effective intervention measures, they need to get to know the adolescents' health-related knowledge and practices, as their habits interfere directly in their quality of life when adults. Thus, the relation between health and lifestyle brings out representations that permit understanding the social knowledge the subjects construct on this phenomenon. Therefore, the reference framework for this study is the Social Representations Theory (SRT), which allows for a broader understanding of the meanings the adolescents attribute to health and the practices they adopt for the sake of health promotion.

In SRT, both the subjects and objects constitute a relational process, which means that the knowledge is constructed in relation to the world. Hence, health professionals have used this theory in their research to get to know the meanings man creates in his interaction with the world in order to explain different phenomena[4].

In this interval, the health professionals should carefully look at the thoughtless attitudes the adolescents take to achieve perfection, without any concerns with the future consequences for their health. To avoid these problems, the main knowledge construction tool the nurses have at their disposal is "health education". A study on the protagonist role and knowledge of this age range would further the nursing care practices and investments in adolescent health promotion.

The educative proposals of Paulo Freire (1996) were embraced as one of the guiding axes of the educative role of nursing, as an educative-dialogical model is proposed to transform the reality based on criticism and reflection. The traditional education model is not recommended, which is characterized by a kind of relation that is free from autonomy, vertical and depositary in the search to solve problems[5].

The relevance of this research is based on the fact that the adolescence phase plays an outstanding role in the definition of customs and habits for the lifetime. It is important to identify them and, using intervention methods based on care, to dialogue with the adolescents so that they can reflect on their habits and how these can influence their health problems in adult life.

Such concepts are mainly based on one of the fundamental principles of the Ministry of Health's National Guidelines for Comprehensive Care to Adolescents and Young People, which considers health education as the best way to prevent problems[6].

The aim in this paper is to describe adolescents' knowledge about health and what they do to remain healthy and promote their own health. The target is to be able, based on the produced knowledge, to establish health promotion and disease prevention measures that lie closer to this age group's reality, departing from their understanding of human health issues.

METHOD

A qualitative and descriptive study was undertaken, using the theoretical approach of the social representations to explore the contents that constitute the adolescents' knowledge about the research problem. This framework permits a broader understanding of how knowledge is constructed, highlighting the social context the people are part of. The social representations establish relations between individuals and society, "they circulate, cross and are relentlessly crystallized through a statement, gesture, encounter, in our daily universe"[7:42].

The participants were 21 adolescents living in the city of Rio de Janeiro, 12 girls and nine boys. The selection of the participants was based on the snowball method, which involves the random identification of subjects based on a network of interrelations established with the researcher. Initially, two adolescents, one boy and one girl, were contacted and informed about the research objectives, so as to motivate them to participate.

Next, each of them was asked to invite at least three other colleagues. The first participants contacted in the application of the research are the "seeds"[8], as the other participants emerged from them. This dynamic continued until reaching 26 adolescents.

The following inclusion criteria were set: age range between 12 and 19 years, as established by the Statute of the Child and Adolescent[9], with intact verbal communication and cognition, who accepted to participate in the research through the signing of the Informed Consent Form (ICF) by the adolescent and the responsible caregiver. Anyone who did not accept to participate or did not hand it the ICF signed by the responsible caregiver were excluded, which was the case for five adolescents.

The data were produced in December 2012. Previously scheduled individual interviews were held at locations selected by the adolescents in order to facilitate their participation, guided by a semistructured script the research team had elaborated, with open questions that explored the adolescents' health-related knowledge and practices.

In general, the questions were intended to express what the participants understood about health and what constructions/images were entrenched in what they consider as health and self-care practices. The adolescents were asked what they understood about health, how they identify a healthy person, if they consider themselves healthy and what, in their opinion, makes it difficult for people to maintain their health.

To identify the participants, alphanumerical coding was used and the interviews were recorded with an electronic mp3 device and later transcribed. The thematic content analysis method proposed by Bardin was used, resulting in the categorization process[10].

This method is based on the analysis of the contents described based on the interviews, in order to identify the divergences and convergences the subjects defined and group them in categories. This methodological trajectory is organized in three hubs: 1. Pre-analysis; 2. Exploration of the material; and, finally, 3. Treatment of the results: inference and interpretation[10].

This type of evaluation involves the analysis of information about human behavior, permitting quite varying applications, with two functions: verification of hypotheses and/or questions and discovery of what lies behind the manifest contents[11].

This research is part of an Integrated Research Project with approval from the Research Ethics Committee at Anna Nery School of Nursing (EEAN) and Hospital *Escola São Francisco de Assis* (HESFA) at *Universidade Federal do Rio de Janeiro* (UFRJ), protocol 077/07. Resolution 466/12 on research involving human beings was complied with.

RESULTS

As regards the understanding of what health means for the adolescents, it was verified that there is no agreement, considering that health was referred to as: adopting a healthy diet (cited by six adolescents); wellbeing/being well (five); something that should be maintained daily and hygiene (two each); quality of life of human beings; care of oneself; having a lot of energy; leisure; life, each mentioned by one adolescent; and two adolescents were unable to define it.

When asked to identify what a healthy person represents to them, the main determinants the adolescents adopted were: body (nine); food, being healthy; and physical exercise (eight); feeling well/having energy (three); appearance of the skin and hygiene; not feeling bad/feeling pain (two each) and having normal feelings (one).

The adolescents need comparisons with family members, which serve as examples of what it means to be a healthy person. In this context, the following were cited: The mother figure (five); brother, cousin and uncle (cited by two each); father, grandfather and himself (one each). Beyond this context, a friend and the physical education teacher (three each) and the soccer player Neymar (cited by one adolescent) were mentioned. When asked whether people are healthy in their family, however, the participants affirmed that this is the case for all (nine), some (seven) and none (five).

The adolescents perceived the following difficulties to maintain their health: the choice of fatty foods (seven), lack of time/too many commitments (four), laziness (three), maintenance of harmful habits and lack of care for oneself (cited by two adolescents each), money, willpower, attraction towards what is not healthy, ease to purchase what is not healthy and loss of time with other attractions, like surfing the internet, cited by one adolescent each.

Many adolescents do not consider themselves healthy. In this regard, the gender difference should be highlighted though. Most of the girls (nine) do not consider themselves healthy, two affirm that they are and one could not define her condition at that moment. Equal answers were found among the boys, as five considered they were health and four did not.

Concerning the observation of their colleagues' health, most of the adolescents (11) informed that only some are in good health, while seven are not and only three are considered healthy. One point observed was that, although the adolescents compared their health with that of their colleagues and relatives, the group affirms that, in daily conversation, the health theme is not discussed, except in case of school work on the theme (five) or when they or someone close to them is ill (two).

Similarities were found with regard to what the adolescents do to maintain their health. Twelve participants affirmed care with their diet and 14 practiced physical exercise; one answered about leisure activities and another about the absence of harmful habits like smoking and alcohol consumption.

At the end, the adolescents were asked to list factors related to good health, including: good diet (seven), wellbeing (four), relation with oneself (two), having a healthy life (two), healthy person, happy people (two), special care, life, spontaneity and improvements in life (one answer each).

Being healthy: what the adolescents think

The health constructs established by the adolescents

The data found reveal the conception of health as the absence of disease, even if this judgment is subtly permeated or masked in the discourse. The main discourse was that health reflects an appropriate diet, regular physical exercise and wellbeing.

> *I think it's the person's wellbeing. The person who maintains a healthy diet, hardly has any problem, no disease, that's it (F3).*
>
> *Quality of life of the human being. It means treating oneself better for one's body to get better and not catching any disease, that kind of things (M9).*
>
> *Having a healthy diet, like with balanced weight, body... (F12).*
>
> *For me, health means life, you cannot survive without health. Health is essential. Health means food, what should I say... It's... leisure is health too. You cannot stay in a house with infiltration because you can get ill. Health is almost everything in our life. It's the base of everything (F6).*

When defining a healthy person or not, the adolescents attribute this condition to determinants like the bodily appearance and one's perception of the body image. Next, the practices are mentioned that are necessary to stay well.

> *(healthy) Physically well, good physical preparation (M1-M2).*
>
> *Not very thin and not very fat. A person who is, let's say, normal. It's... who doesn't smell very bad (M3).*
>
> *A well-nourished person, colored, with a good, clean appearance, a thin person... a downcast person is the opposite (M8).*
>
> *Does not eat those fatty things, exercises, has a very nice body (F1).*
>
> *Athletic body, a person whom I know exercises, people who eat well, eat appropriately every day and whom I live with... you can see by their manner if their health is good or bad (M4).*
>
> *(not healthy) the person is always looking tired, sad, never has energy to do anything. (...). The person is more vulnerable to these flues, allergies, is ill all the time (M6).*
>
> *When the person is obese and does not exercise (M4-F7).*
>
> *I think that a person who only eats junk, you see a person who eats hamburgers, hot dogs, chips every day. Goes to physical education in school, anywhere and is unable to do it, feels a lack of air, all of these things. (...) According to me, you can see it when the person is not healthy, how the person acts, walks, runs, breathes (F6).*

Knowledge and practices of adolescents to maintain their health

Many of these adolescents do not consider themselves healthy. Nevertheless, they unhesitatingly consider knowing what is necessary to stay healthy, but still report habits/practices that impede them from taking care of themselves. This disagreement between the ideal and the real is one of the common problems in this age group and an element in the study of social representations.

> *[healthy?]*
>
> *Because I eat well, exercise, those things (M9).*
>
> *Because my mom is always picking on me, it's kind of unavoidable (not being healthy) (F5).*
>
> *Because I always try to eat well before leaving, I do sports, I try to visit the doctor regularly to know how my health is doing. Not only when I'm ill, but always when I'm fine too (M1).*
>
> *No. Because my life is very sedentary, (...) I eat a lot of junk all the time(F1).*
>
> *No. I'm anemic. I don't like eating vegetables and greens very much (F10).*
>
> *Because at my home I'm the most like, I'm ill all the time. I always catch diseases very quickly, I catch colds all the time. I eat a lot but I'm very skinny, but I eat a lot. That matters too... I'm always having problems, I have to go to the doctor almost every month (F3).*
>
> *[if the colleagues find her healthy] I guess so. They say like: your body is beautiful, I don't know, you must be eating well, right. I guess so (F8).*
>
> *They've already said I'm healthy, but I said no. I said I wasn't and that was true (M7).*

The view on the other person's health

As observed, the examples of healthy people the adolescents presented mostly come from family life, followed by the physical education teacher and friends. Only one media personality was mentioned, based on which it can be inferred that the constructions about being healthy or not are directly related with the knowledge about the practices and care experienced. Hence, mainly the people they have contact with are easily characterized.

My father. Because of his physical structure, from birth he's very strong, healthy, eats fruits and vegetables and practices a lot of sports (M1).

Because my mother only eats full-wheat things, she's got a nice body, does not have a lot of health problems (F10).

Because he's a physical education teacher. So he knows what's good for one's health or not, he practices sports daily, even if he doesn't want to he's obliged (M4-F7-F11).

The adolescents' view on their family and friends' health is not well outlined. Some affirm that the family is healthy and others say that this is partially true. It was observed, however, that they used the same characteristics of what it means to "be healthy" as adopted earlier, that is, the body, absence of disease and diet, among others.

[family]

Some people are too fat, too thin, some even eat too much and are still thin. That's the case of my mom... she's fat and eats a lot of heavy stuff (F2).

Because my grandma is diabetic, so she does not eat much sweets, she eats a lot of vegetables, rich foods like... she doesn't drink much soda, she drinks juice, a lot of water, she eats fruits and that's it (F9).

Because they're always well, they're never ill. Nobody's anemic, diabetic, nobody has anything (F10).

[Colleagues]

Some yes, others no. The ones who're healthy always eat well, run with me and practice sports. The others just smoke, drink, do not practice any sports and only eat junk (M4).

The ones who are healthy (...), the majority are men because they're always playing soccer, always aiming for appearances in the perfect body and I think that matters a lot (F5).

DISCUSSION

In the light of the results found, it was clear that, for the adolescents, the representation of complete health is related to their diet and their general bodily wellbeing. When defining what health is and how healthcare takes form, they do not fully perceive its range.

> The diet element demonstrates the adolescent's positive concern with their health, something that is intrinsically more linked to life and which they can take care of, by taking care of their body through their diet. This fact also brings the historical connection of this element through the messages of who takes care of the adolescent (parents, grandmothers etc.) when the relevant of an appropriate diet to maintain or achieve good health is highlighted[12:4].

The adolescents highlight the bodily esthetics as a health paradigm, in which the ideal body is skinny and represents the opposition against the emergence of diseases. Throughout history, both the concept of a healthy body and the influences external to the body, which constitute a social and cultural body, undergo changes. The stressful routine, the lack of time, the technological dominion in different areas seem to prevail over the body, the desire for health, defined muscles, eternal youth, extreme beauty. All of this comes with the need to "blow off steam" and relax[13].

The care for one's appearance is justified by the "social surveillance", based on the "external beauty models" that are imposed, for example, by fashion standards. This relation with health as well as esthetics arouses feelings of self-esteem and self-confidence, deriving from the satisfaction with one's own body image, sufficient to make these young people enjoy the desired happiness[5].

The excessive valuation of young esthetics, stimulated by the media and by celebrities, should be questioned, including the establishment of relations with the search for momentary accomplishments, instantaneous pleasure that do not entail concerns with the maintenance of health. The relevance of feelings present in a large part of these young people should not be ignored though, nor in the adult population who identifies and mirrors itself and aspires to their behavioral values and beauty ideals[5].

In that sense, in the results, esthetics, the financial and emotional condition, the regularity of healthy practices and the absence of harmful practices, among others, figure as health determinants in the results.

In the same sense, the adolescents identify and characterize the other people as healthy or not. This assessment seems to depart from their closeness to those people's daily life. Hence, one may say that not only the perceived image, but also the underlying practices are involved. This was perceived through the examples of so-called healthy people, mainly relatives, friends and, beyond this universe, the physical education teacher. The adolescents justify the choice of this professional because he exercises a lot and is familiar with healthy practices.

The elements circulating in the conversations among the adolescents and constituting their representations about health relate to the two main guiding paradigms of health practices: the biomedical and the social production of health. When the adolescents consider health as a model opposed to disease, the premises of the biomedical model prevail, which requires a series of care actions aimed at preventing diseases, revealing characteristics that model the bodies representative of the ill or the healthy; when they consider health in a broader and more

contextual sense, and allude to the environment, like infiltrations in a house or financial conditions and diet for example, among other aspects, they indicate the understanding that health results from a social production[14].

As regards self-care, there is a dichotomy between what is recommended and what is done. None of the adolescents experienced difficulties to mention essential practices to maintain health, but all of them mentioned great limitations to maintain them.

Thus, a gap remains between the adolescents' health-related actions and representations, as the premises between knowing and doing are not always aligned. Therefore, health education plays a fundamental role in the adolescents' health maintenance, in which the nursing professionals should provide directions and clarify possible doubts, promoting actions that stimulate self-care and the adoption of healthy habits, focusing on the valuation of the adolescents as care subjects, in the school as well as in the family contexts[15].

In adolescent health promotion, the nurses and all health professionals should value the adolescents' knowledge and establish a relation of knowledge exchange. Thus, they can reach the common sense, which favors the construction of a therapeutic action proposal in which the clients are more active and not passive in care[15].

In this interval, it can be inferred that, for the adolescents, health remains the opposite of disease. This is not dominant though, and adds up to the implications of the social and cultural body, the pre-established and stigmatized patterns, the health ideals manipulated by capitalism and the weaknesses of care as a whole.

CONCLUSION

In conclusion, the adolescents' health-related knowledge and practices are similar, but the meaning each of them attributes serves as a decisive factor in the follow-up and decision making about self-care. The existing health representations are established through influences from society as a whole, especially the media and the family.

There is a gap between what they desire and their practices. In other words, possessing information is not the determinant element in the adoption of good practices. This can be explained by the fact that the adolescents are not fully aware yet that their habits may entail consequences for their health. This aspect demands further interventions for health promotion, considering that these adolescents possess preliminary knowledge, but need to make it palpable.

The development of healthy habits in childhood and adolescents has a great chance of turning into healthy habits in adult life. Therefore, it is that fundamental to teach and encourage healthy life habits in the adolescents, and Nursing plays a mediating role in this process.

Nevertheless, the results showed that the adolescents possess knowledge about their health and the problems the bad habits can entail. This matter is more related to the culture of these practices than to actual information, but it is highlighted that this understanding matters for the actions that are to be planned and developed with this group through health education strategies.

Health education turns into an essential tool, as it considers the adolescents as individuals with knowledge who sometimes need to be sensitized through other knowledge in order to construct and/or improve their practices. The role of nurses is to provide equipment based on each adolescent's individuality, that is, to move beyond scientific knowledge transmission.

This study achieved the proposed objectives and can be expanded *a posteriori* to focus on the interventions, suitable health education measures, besides identifying the health representations for this group, in order to adopt objective measures with effective outcomes for adolescent health.

In addition, knowing what the adolescents think and know permits helping to construct new programs and policies focused on that group, thus avoiding further future public health spending on possible illnesses that can affect them in adult life.

Expanding the number of participants, replicating the study in other contexts and applying other analysis techniques with triangulation can contribute to enhance the range of the results and reduce the study limitations.

REFERENCES

1. Organização Mundial da Saúde - OMS. La Salud de los jóvenes: un reto y una esperanza. Geneva (SUI): OMS; 1995.
2. World Health Organization - WHO. Inequalities young people's health: key findings from the Health Behaviour in School-aged Children (HBSC) 2005/2006 survey fact sheet. Copenhagen (DEN): World Health Organization, 2008.
3. Gamboa JAJ. Representações sociais de corpo em estudantes do ensino médio. [dissertação]. Rio de Janeiro (RJ): Instituto de Estudos em Saúde Coletiva, Universidade Federal do Rio de Janeiro; 2009. [CD-ROM]
4. Jovchelovitch S. Representações Sociais: saberes sociais e polifasia cognitiva. Cultura e Pesquisa. 2001 set; 2: 1-56.
5. Alvim NAT, Ferreira MA. Perspectiva problematizadora da educação popular em saúde e a enfermagem. Texto & contexto enferm. 2007 abr/jun; 16(2): 315-9.
6. Ministério da Saúde (Brasil). Diretrizes nacionais para a atenção integral à saúde de adolescentes e jovens na promoção, proteção e recuperação da saúde. Brasília (DF): MS; 2010. 132 p.
7. Moscovici S. Representações sociais da psicanálise. Rio de Janeiro (RJ): Zahar; 1978.
8. Albuquerque EM. Avaliação da técnica de amostragem "Respondent-driven Sampling" na estimação de prevalências de Doenças Transmissíveis em populações organizadas em redes complexas [dissertação]. Rio de Janeiro (RJ): Escola Nacional de Saúde Pública Sérgio Arouca, Fundação Oswaldo Cruz; 2009. [CD-ROM]
9. Lei nº 8.069, de 13 de julho de 1990. Dispõe sobre o Estatuto da Criança e do adolescente (ECA). Diário Oficial da República Federativa do Brasil, Brasília (DF), 13 jul 1990 [citado 2014 jan 28]. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/l8069.htm.

10. Bardin L. Análise de conteúdo. 6 ed. Lisboa (POR): Edições 70; 2011. 229p.
11. Minayo M.C. O desafio do conhecimento: pesquisa qualitativa em saúde. 8ª ed. Rio de Janeiro (RJ): Hucitec; 2004.
12. Cromack LMF, Bursztyn I, Tura LFR. O olhar do adolescente sobre saúde: um estudo de representações sociais. Cienc. saude colet. 2009 mar/abr; 14(2): 627-34.
13. Siqueira DCO, Faria AA. Corpo, saúde e beleza: representações sociais nas revistas femininas. Comunicação, Mídia e Consumo. 2007 mar; 4(9): 171-88.
14. Pereira TTSO, Barros MNS, Augusto MCNA. O Cuidado em Saúde: o Paradigma Biopsicossocial e a Subjetividade em Foco. Mental. 2011 jun/dez; 9(17): 523-36.
15. Silva JG, Teixeira MLO, Ferreira MA. Alimentação e saúde: sentidos atribuídos por Adolescentes. Esc Anna Nery. 2012 jan/mar; 16(1): 88-95.