THE AWARENESS OF PARENTS REGARDING THE IMPACT OF TECHNOLOGY ON THE HEALTHY LIVES OF THEIR CHILDREN*

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ABSTRACT: The goal of this study is to identify, through qualitative approach with descriptive content, parents awareness about technology impact on healthy lives of their children. Data was collected in two schools, located in the city of Santa Maria, state of Rio Grande do Sul, during the second semester in 2013, by doing fifteen semi-structured interviews. After analyzing the results, it was noticed that the impact technologies have on lives of children is clear and negative. It promotes isolation and sedentariness, besides, the interferance on the development of the child, that keeps from seeking other ways of amusement. In this context, the nursing department sees as its duty to guideparents to lead a healhty lifestyle, and from then on, following as example to improve thehabits of their children. It must be observed the importance of multidisciplinary work, through partnerships that focus on estimating the care about the health of the children.

DESCRIPTORS: Nursing; Child; Technology; Healthy habits.

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Percepción de padres acerca del impacto de tecnologías en el vivir saludable de sus hijos

RESUMEN: El objetivo del estudio fue identificar, por medio de abordaje cualitativo de carácter descriptivo, la percepción de padres acerca del impacto de tecnologías en el vivir saludable de sus hijos. Los datos fueron obtenidos en dos escuelas, ubicadas en la ciudad de Santa Maria, estado de Rio Grande do Sul, durante el segundo semestre del año de 2013, por medio de quince entrevistas semiestructuradas. Tras la interpretación de los resultados, se concluye que el impacto de las tecnologías en la vida de los niños es evidente y negativo. Favorece el aislamiento y el sedentarismo, además de interferir en el desarrollo de la creatividad de los niños, que dejan de buscar otras formas de jugar. En ese contexto, es responsabilidad de la enfermería orientar los padres para que adquieran hábitos de vida saludables, e, a partir de su ejemplo, consigan mejorar los costumes de sus hijos. Se destaca la importancia del trabajo multidisciplinar de asociaciones para estimular el cuidado con la salud infantil.

DESCRITORES: Enfermería; Niño; Tecnología; Comportamientos saludables.
INTRODUCTION

Contemporaneity is marked by numerous advances, with the influences technological and scientific changes have had on many fields of human activity being undeniable. All the systems, whether social, economical, political or cultural, have faced challenges arising from technological changes\(^1\).

The term “technology” refers to all human inventions that extend the physical, sensorial, motor or mental capacity of people, and reduce or simplify their work, enhance their interpersonal relationships or simply provide pleasure\(^2\). They include technologies commonly used by people, such as the mobile phone, the computer, the video game, the tablet and the television, amongst other technological devices disseminated in our culture. Therefore, technology has been created to interact with man and can be used to control, transform or create things and generate natural or social processes. According to the way in which they are used, they become capable of establishing the lifestyle of an entire society, employing cultural and social control over the human being\(^3\).

Technological devices are linked to the social routine, being capable of shaping behavior, attitude and changing values and traditions, since they provide the dissemination of information and become part of the thoughts and discussions of people. By expanding the reflection regarding the use of technologies, the way in which they contribute to the formation of conduct and opinion, contributing to the transmission of popular knowledge and the dissemination of life habits can be perceived.

It is, therefore, understood that healthcare professionals must be aware of the outcomes that technologies produce in individuals, as they influence the culture and life habits of people. In this study, there is potential concern about children, since they are in the process of constructing their ethical and moral ideas and are unvaryingly involved with the overload of information and also with the technological culture, receiving severe influences on their healthy lives.

It is known that childhood is a life cycle stage in which the human being goes through numerous learning processes, as well as undergoing new and continuous adaptations\(^4\). In this life stage there is a strong interaction and apprehension of stimuli, which leads to the well-being of the child experiencing a constant influence from these relationships with technological devices.

The child is a biological and symbolic being that is evolving and adjusting to the environment in which he/she lives. The environmental conditions of the micro and macro environment where children live and their family structures are both meaningful aspects in the development of their capabilities and their ways of being and understanding the world, shaping their life habits and, obviously, their healthy life\(^5\).

The development of child science is a result of interactive processes, in which children construct their concepts from the resistance the environment provides. Therefore, the knowledge of children comes from the interaction with others and with objects, in this case, technologies\(^6\). Piaget\(^7\) stated that “knowledge arises neither from the subject nor the object but from the inter-dependent interaction between them, so as to advance from there in the dual direction of an objectified exteriorization and a reflexive interiorization”. In relation to technology, the knowledge of the child is under constant development. However, this knowledge is not a synonym of science, but it is the result of varied ways and methods of producing knowledge, as well as many other methods of learning\(^8\).

Although the access to information and the existence of technology in society have proved to be of great value, they do not ensure intellectual growth and the advancement of a healthy life. For this reason, there must be a certain caution about which technological devices children handle and how they do this. Hence, it is known that technology and all the information linked to it have a strong control over the current culture. Therefore, the way in which technology has contributed to our habits and customs, more precisely to health issues, to the development of children and to their formation as adults, needs to be considered.

From these issues, the subsequent question arises, related to the general aim of this study: What awareness do parents have regarding the impact of technology on the healthy lives of their children? Therefore, the specific aims of this study were: to know how parents control the use of technology of their children; to describe the relationship established between parents and children regarding the use of technology by the children; to identify the influence of technology on the healthy lives of children.
METHODOLOGY

The method used to approach the aims of this study included a qualitative approach with descriptive content. This type of research methodology offers the researcher the possibility of trying to understand the way individuals think and react when exposed to specific questions, in addition to helping in the understanding of feelings, values, attitudes and fears of people, and explaining their actions faced with a problem or situation.

This study was conducted in September and October, 2013. A total of 15 interviews were carried out, with parents of children from six to twelve years of age, chosen by previously selected criteria, from two schools in the city of Santa Maria, in the state of Rio Grande do Sul, Brazil. In order to designate the schools, a draw was made from public and private schools, intending to contrast possible differences and improve the study. It should be noted that the directors responsible for the educational institutions authorized the study and also provided a classroom for the interviews to be performed, with the objective of avoiding possible inconveniences and/or exposure of the interviewees. The invitation was presented to the parents while they were taking their children to school or picking them up.

Accordingly to the aims of the study, the criteria chosen for inclusion in the interviews were, that the interviewees had children who made use of some type of technological devise (such as computer, mobile phone, television and/or video game, among others), and that they lived with the children, since the interaction is essential to better monitor their habits. Parents who did not live with their children and single child parents were excluded from the study. The reason for choosing the age range from six to twelve years was because it is during this age children develop their moral standards, their feelings, mutual respect, honesty, companionship and an idea of justice.

The data was analyzed taking the theory of Bardin as a base. Content Analysis was performed, which is used in empirical research, with its primary function being to uncover critical issues. This type of data analysis aims for the discovery of relationships existing between the content of the speech and external aspects, which allow the comprehension, use and implementation of certain content. For this, three techniques were used on the information, organized as follows: pre-analysis, study of the information and processing of the results, inference and interpretation.

The ethical recommendations of resolution 466/12 were considered. The study was approved by the Research Ethics Committee of the "Centro Universitário Franciscano" under authorization number: 19403313.3.0000.5306 and registered with the National Research Ethics Committee – CONEP under number 365.832.

RESULTS

For the interpretation of the results thematic nuclei, such as the healthy life, the impact on social interaction, sedentariness and technology, and intervention of parents, among others, were grouped according to the following empirical categories: "realizing the healthy lives of children in their relationships and daily activities" and "comprehending the impact of technology on the routine and health of children".

Difficulties in the relationship established with the children due to the use of technologies were identified by the parents, who use routines to encourage the healthy lives of their children.

Realizing the healthy lives of children in their relationships and daily activities

The statements presented below demonstrate that, for the majority of the parents, the healthy
lives of the children were mainly connected to their daily activities, to the practice of exercises, such as play time for instance, a moment in which they generally move a lot, and to an appropriate diet. However, some parents pointed out the relevance of the relationships of their children, these being relationships with friends and family.

To live healthily is when you have some leisure, to be able to practice a sport, to enjoy childhood, to play with your friends, to socialize and to eat healthy food. [P1]

In my opinion a healthy child is basically one that eats well, plays well and one that is in a good environment. To live healthily means to get love from your family. [P3]

It’s when you have a balanced diet, and practice varied physical activities. [P4]

A healthy child is one that studies and plays, but play time cannot be on the internet or television, play time is to run about too, to have contact with nature, to be in the playground with the other kids. [P8]

In my opinion it would be a child that would have the right to play, healthy, meaning that the child shouldn’t have any pathology, any ailments at all. So the child would have a healthy mind. [P15]

They went beyond the aspect of disease when they mentioned the kind of environment in which the child must be in to grow healthily, an environment that should provide health, affection and the full development of the state of mind.

Furthermore, the parents believed that the health of their children was their and the school’s responsibility. The statements transcribed below illustrate how the parents worried about the best possible way to provide healthy lives for their children.

I think that a child is healthy when the mother and school are able to provide a healthy life for it, in addition to an appropriate diet and a good education. So, the responsibility goes to both of them. [P1]

Nowadays it’s difficult to control a child’s health, and if we don’t set an example, it gets even more difficult. The child is like a mirror of its parents; if even when we eat vegetables, it’s already difficult, imagine if we didn’t do what we are supposed to. They know it all; they blame us when we do something we usually ask them to do. [P9]

The school is part of it, teachers give physical education, give advice about snacks, they tell the parents what shouldn’t be given to their children, we try not to do it, but sometimes, in the rush of the moment it’s easier to provide those ready-made snacks. [P11]

Some of the subjects stated that lack of time and the rush of the everyday routine are obstacles faced when raising their children, since these two problems restrain them from carrying out their obligations as progenitors better, such as taking care of the diet of their children, for example.

I’ve been worried, because his last blood test wasn’t so good; I took him to the pediatrician and now to the nutritionist to find out what the problem is with his health. We’ve been taking drastic measures that involve all the family, because it’s our fault, because we eat badly and, therefore, he does too. [P13]

Children watch television and through their parents, they start consuming some products, as is shown in the following statement:

We are trying to cut down on television hours, because he eats a lot of junk food and doesn’t even notice it. Not to mention that he asks us to buy everything he sees on TV. We try to talk to him, explain that it isn’t always possible to do that, but it gets really difficult. [P13]

Comprehending the impact of technology on the routine and health of children

As supported by the responses shown below, all the interviewees stated that technologies have a negative impact on the lives of their children. The greatest concerns of the parents were related to the isolation and sedentary lifestyles of the children:

There is a huge impact, because I think the child loses the interaction, with friends and with family, because they are focused on the computer, on electronic games or on television, so about this interaction part, there is much to be desired. [P2]

It does have an effect, my son only wants to play videogame, if I let him he’d play hour after hour and that is harmful, he barely eats, barely talks to us, to the family. [P14]

When we take him from his bedroom, out of his cartoon world, he’s very quiet interacting with people. [P13]

Well, there’s so much distress that sometimes they don’t want to leave home so that they can watch TV. [P10]

In addition to the relationship issues and those that influence the construction of the child as an
individual, technologies worried the parents in relation to the impact they have on the health of their children, a fact that can be observed in the following statements:

I am amazed at their sedentariness, the other day we took them to a field, to run a little, they soon got out of breath, tired, but come on, they almost don’t leave our house’s yard, so I do think there’s an impact. [P7]

I guess there’s a great effect on physical activity. [P5]

There’s total impact, because he becomes sedentary, he doesn’t practice any activity, not even when we try to take him to do it. [P13]

From these statements, it becomes clear that technologies have a negative result on the healthy lives of children, since they cause them to have a sedentary lifestyle.

In the opinion of the parents, play time is essential, however, for that to happen there must be various discussions and encouragement, as can be noticed in the following extracts:

I think playing is everything for a child, it’s essential for them. [P2]

If other kids come along, they barely play with them, they only get ‘stuck’ to the videogame in the bedroom, I have to drag them outside to play, to run for a while. [P4]

At my home there’s always an argument to leave the computer or the television, it seems like there are no other games, they don’t know how to play with anything else, it’s really terrible. [P16]

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Analyzing the statements of the interviewees, it can be noticed that technologies interfere in many aspects of the lives of the children, since on many occasions they resist playing outdoors and prefer to stay inside the house, surfing on the internet, for instance. The elevated number of technological elements affects the daily lives of children in relation to both social coexistence and health, since they do not eat properly while in front of the television or the computer. Additionally, mainly because of television advertising media, children end up eating an excess of industrialized products, with these products being especially unhealthy for developing bodies. All of this is aggravated by the parents’ busy routine, due to which they cannot control what their children are eating. In this situation the responsibility of the school and teachers increases, since they try to reeducate the children concerning their healthcare, providing them with recreational moments and physical activities, and also showing them how important it is, for their minds and bodies, to maintain a healthy and balanced diet.

**DISCUSSION**

During the neuropsychomotor development of the child, the mother and father figures serve as references to be followed and imitated. Parents and/or caregivers are responsible for the emotional structure of their children and have the role of facilitators in their growth and development processes. Both the parents and the school should guide the child in healthy habits and seek, through quality of life, to promote the health of the child.

Inappropriate habits, often imitated from the adults, significantly increase the number of children and adolescents that suffer from chronic degenerative diseases. Dyslipidemia, high blood pressure and type II diabetes mellitus are being treated at an increasing frequency by pediatricians.

Nutritional changes result from a number of factors, however, are mainly connected to the excessive ingestion of industrialized products purchased by parents. This ingestion is stimulated by marketing through the advertising media, which increasingly has children as its focus, who often do not have sufficient insight to opt for the healthier product. On television, in general, the images are broadcast rapidly and the child does not have enough time to completely understand what is shown or to evolve a critical understanding or logical thinking about such information.

From the perspective of the market, above all, the child is a consumer in formation and exerts a powerful influence on the selection processes of products and services. According to the Child and Consumption Project (Projeto Criança e Consumo), of the Alana Institute, seven out of ten interviewees stated they were influenced by children when purchasing food. According to the Childhood and Communication Seminar: Legal Frameworks and Public Policies, children currently participate in 80% of shopping decisions in a family.

The practices of unbridled consumption, combined with commercials directed toward children and adolescents, is related to the occurrence of uncountable problems, such as premature eroticization, behavioral and eating disorders, violence and family stress. Therefore, the current lifestyles of children have a strong
relationship with the environmental conditions, with the general habits of their family members, and also with the use of technologies and the strong influence of the media related to capitalism. The parents indicated difficulties and worries regarding some of the habits their children have and disclosed that they were aware that they have the greatest responsibility for providing healthy lives for these children.

Children are in the process of transformation, therefore, it is possible to provide them with a healthy life, as, in comparison to adults, they are easily persuaded to change their life habits, due to the fact that they have not become so attached to their everyday routines. However, to be able to achieve this, it would be necessary to have education strategies that include parents, family members, caregivers, teachers and healthcare professionals.

For the new generation, inserted in a digital world, there has been a marked increase in health hazards due to the improper use of technologies. The excess of time that is spent in front of the computer, for example, causes sleep deprivation and a drop in school performance and inclines the child toward sedentary habits, among other problems. Progressively, children are increasingly spending more time on passive and solitary entertainment, in front of the TV, the video game, the computer, that if not used correctly, this can lead to a lack of creativity, lack of interest in reading, reduction of curiosity, sedentariness and isolation.

According to the reports from the interviewees of the study an alarming reality can be noticed, this being that children are not interacting with family, and instead are only focusing on the virtual world of electronic media. Without limitation and control, the virtual world will progressively become confused with the real world. The technological devices are constantly changing behavior and the way people relate to family and friends, with the possibilities of traveling the world without leaving home.

The importance of the interaction between the child and the digital world is unquestionable, mainly due to the process of development of the child, this experience is seen as a necessary step in the socialization during childhood, providing space for learning about roles, cognitive and moral development, control of aggressive impulses and acquisition of global social skills.

Technologies can, however, cause social isolation in children, leading them to become less altruistic, i.e., less worried about helping or offering good things to other people, as they spend hours online, abandoning their interest in third parties. They also fail to develop empathy and become less willing to construct friendships and trust.

Technology can hinder children in the development of essential relationships during the early stage of life. There has been an increase in narcissism and a decrease in empathy among other young people. Although there is no direct connection to technology, it is clear that the rise of new media forms and their greater popularity has caused losses. A child that does not develop an interpersonal relationship can become insecure and unprepared to face pressure, teasing and unfamiliar situations.

Sedentariness has been increasingly affecting the youth population and is one of the main risk factors for obesity. It is considered that sedentariness in childhood and adolescence has become more common due to the lifestyle chosen by the children, family and caregivers.

Play time can be a way to encourage the child to exercise, since playing is more than practicing a physical activity; playing is not only a time for having fun, but the child also learns, creates, recreates and interacts with the world.

The statements of the parents demonstrate that, in their judgment, there are countless ways to play and the technological games occupy many hours in the routine of the children, in spite of not being the most appropriate for them. This constant presence, along with the lack of physical activities, forces the parents to intervene in the routine of the children, steering them away from this unhealthy habit and enticing them toward entertainment that they consider to be more effective play time.

**FINAL CONSIDERATIONS**

It was noticed that, according to the parents, the healthy lives of their children are their and the school’s responsibility, and that this is directly related to physical activities, diet and family relationships. All of them demonstrated great concern about how they influence the health of their children with their habits, habits which can be related to the encouragement of consumption by the media.

The impact technologies have on the healthy
lives of children is clear and undeniable, as, according to the parents, technologies cause isolation, sedentariness and the lack of other ways of playing. Although, when the parents were asked about the relation their children have with technologies, most parents focused on the frequency their children used them, few of them thought about this relationship. This lack of thought is highlighted by the presence of television for long periods in the lives of the children, since parents often use it as an electronic baby-sitter, validating the formation of concepts, attitudes and values supplied by the television that should be supplied by the family.

In view of these results and the importance of multidisciplinary work, nursing stands out due to its generalist education and its role as health educator. The nursing professional should advise parents about the adaptation of the life habits of their children, as well as their own, in the quest for healthy lives, with relevance to singularities and pluralities. The nurse should warn them about the consequences of the incorrect use of technologies by children and guide parents in effective control and monitoring, considering that when these technologies are used pedagogically they become powerful tools for the development of the child.

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