

Adolescing in body, mind and affection: a study on developing values and attitudes from science teaching

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Abstract

The National Curriculum Parameters (NCP) of the Third and Fourth Cycles of Elementary Education in Natural Sciences refer to educational actions that signify adolescence considering the necessary interaction between the organic brand, puberty, and the culturally and socially produced senses on the body and identity at this stage of human development. Teaching in Sciences implies the relational construction of knowledge, values and attitudes for an adolescent who responds to the demands on himself, in a critical, cognitive, and affective way, to maintain body integrity, reproductive health, and sexual behavior. This research aimed to analyze the scope of actions and practices in Science Education in adolescence based on the content of the speech of 9th grade students. For this, it was used as a method of data collection, the Focus Group and as an analysis tool, the Content Analysis proposed by Bardin. Three categories emerged: in the first, the gender factor is taken as a reference to indicate the variations of self-image and self-value attributed to themselves by adolescents; in the second, self-assessment of physical appearance is related to the cultural standards of beauty and ideal of the body, falling on its values and judgments, potentiating feelings of inadequacy due to non-correspondence to the expectations of the predominant model; and the third, indicates the absence of a reliable source at the school for decision making. The research concluded, in this context, that the school is not a place of speech for the adolescent, because it deals with themes related to adolescence with impersonality, focusing on the biological bias of puberty and neglecting the psychosocial, emotional and cultural issues that adolescents demand.

Keywords: adolescence; culture; Science Education; puberty; subjectivity.

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Introduction

Adolescing in body, mind and affection implies characterizing adolescence as a concept product of the historical, social, economical, and cultural context of the twentieth century (MEAD, 1970; ARIÈS, 1981). Defined as a phase of the human development in which identity, value, emotional, relational, and behavioral definitions are processed, adolescence should be understood considering the association of its organic hallmark of changes in anatomy and physiology, which is puberty, with the behavioral changes (AGUIAR, 2014).

Due to its biological and psychosocial complexity, adolescence demands proper pedagogical actions related to the educational process in schools when dealing with the individual-culture relationship in different objective conditions of life during this phase. This in the sense of overcoming social categories that tend to homogenize adolescence, universalizing the meaning of being adolescent (CERQUEIRA-SANTOS; MELO NETO; KOLLER, 2014).

The act of teaching Science and Biology, in this task of mediating gradually, actively and critically, the students for a citizen life, establishes the fundamentals for educational practices in the physical, cognitive, and social development dynamic of the human being, applying national parameters that places adolescence at the interface between the biological development of the adolescent body and the subjective reaches of this process.

The National Curricular Parameters (NCPs)¹ (1998) for Elementary and Middle School in the field of Natural Sciences presents concepts related to the human being and its health. The proposals guide the approach to current and relevant topics concerning the human development in its different stages so the students understand not only the function of each part of their bodies, but also how to preserve their health and physical, mental and relational well-being. For this educational cycle, the following topics are addressed: the ability of the human brain to reason, its capacity of processing and elaborating responses to the stimuli provoked to the human brain, triggering emotions, behaviors and habits (BRASIL, 1998).

As part of the nuances of this broad educational mediation in Science, the sociological field, that supports the perspective of adolescent bodies as cultural elements, and the field of developmental psychology (BEE; BOYD, 2011; PAPALIA; FELDMAN, 2011) are evident, specially regarding the importance of clarifying the



biological and social transformations to young people, as the “*dramatic changes in brain structures involved in emotions, judgment, organization of behavior, and self-control take place between puberty and young adulthood*” (PAPALIA; FELDMAN, 2011, p. 360).

Considering the relevance of Science Education for the multidimensional human formation, this work analyzed the scope of practices in Science Education in promoting knowledge, values, and attitudes in adolescence based on the content from the speech of students.

In this study, data were collected from two focus groups composed by students from the 9th grade. The content from the speech of the groups was transcribed and treated using the content analysis method proposed by Laurence Bardin, based on the unity of analysis “*The Theme*”² (BARDIN, 2016, p. 105). Hence, three categories emerged and were analyzed and discussed in the light of the theoretical foundation of the research: *Self-image, self-esteem and variation factors*, *Asymmetry of the social position of the adolescence body*, and *The value of the secure source in decision making*.

Theoretical Foundation

In an analysis of the formation of the individual and the transformation of the concepts of children and its relation with society, it may be noted that in pre-industrial societies children were seen as young adults and, only from the 20th century, in the Western world, childhood and adolescence were considered separated stages.

In contemporaneity, with the increase of globalization and the easiness in communication, the relationship between young adults and the world is modified, a connection between young people from all over the world, adolescence ceases to be a Western phenomenon and triggers social changes around the world, requiring more information related to adulthood and its responsibilities (PAPALIA; FELDMAN, 2011).

According to Papalia and Feldman (2011), adolescence is not perceived the same manner all over the world, there is an interconnection and an interdependence. Therefore, “[...] *adolescence is not the same the world over. The strong hand of culture shapes its meaning differently in different societies*” (p. 388). Furthermore, many countries or cultures have their own rites of passage from childhood to adolescence.

Considering that each young person has his or her own time and pace of social, physical, cognitive, and affective development, monitoring and orientating school professionals is of paramount importance, as the behavior presented by young people and their decisions reflect their relationship with their parents, their group of friends, with society, and, especially, themselves.

Adolescence in the body

Physical changes resulting from anatomical and physiological modifications denominated puberty are configured by the development of secondary sexual characteristics, thus,

1. Boys: changes in voice; broadening of shoulders; facial, pubic and axillary (underarm) hair; growth of penis and testicles; and first ejaculation of semen.
2. Girls: development of mammary glands; increased width and depth of pelvis; pubic hair; and the first period, called menarche³ (AMARAL, 2007, p. 4).

These biological criteria, according to Campos (2012), does not imply an initial milestone in adolescence, since the intrinsic individual factors should serve as a guide as the chronological age does not directly correspond to the biological age.

In this research, adolescence is understood as “*a sociological term that, under a supposed biological basis, became of psychological use*”⁴ (STEVENS, 2004, p. 27). Thus, the understanding that adolescence refers to the “[...] *psychological reactions of young people to their physical changes brought by puberty and extends until a reasonable definition of their personal identity*”⁵ (CAMPOS, 2012, p. 15).

The importance of determining the subjective reaches that the physical transformations may provoke in adolescence owns its broad reach also to the educational processes in school – quality of interpersonal relationships, academic performance, motivation to begin and maintain school activities.

The self-assessment of physical appearance has a connection with the cultural standards of beauty and the ideal body, influencing the values and judgments about oneself, and may generate feelings of inadequacy by not reaching the expectations of the predominant model (SHAFFER; KIPP, 2012).

This adolescence body, full of new meanings, brings important psychological impacts that will subsidize a (re)constitution of its image during the development of the identity. According to Stice and Whitenton (2002), positive feelings regarding

physical appearance enable adolescents to have high self-esteem and positive relationships with peers.

Discontent concerning body image varies between boys and girls. For the boys, there is the category of those who seek to lose weight and the ones whose only desire is to have a muscular body. For those who are overweight, dissatisfaction increases with weight gain and, for those who are underweight, discontent is greater the lower their weight (KOSTANSKI; FISHER; GULLONE, 2004). According to the Presnell *et al.* (2004), girls feel obligated to remain thin and the lack of appreciation for their body image is related to the appreciation of thinness as they are dissatisfied with their bodies regardless of the weight.

These specificities concerning the ideal body image are fundamental elements in the human development process throughout adolescence and may indicate risk factors for eating disorders, as anorexia and bulimia, as well as depression, reflecting on the educational processes. This because “[...] *it is around this idea of an ideal body that the adolescent grows: between the feared and unknown body, and the perfect and idealized body [...]*”⁶ (CALHEIROS SANTOS; ZANOTTI, 2013, p. 1).

The perception that the adolescents “[...] *have of themselves in the most diverse aspects of life [...]*”⁷ (OLIVEIRA, 2015, p. 5) is denominated self-concept and will influence “[...] *the universe of representations that the students have of their capacities, of their academic achievements, as well as the assessment that they make of these same capacities and achievements*”⁸ (SILVA; VENDRAMINI, 2006, p. 179).

This is a cognitive structure of beliefs that people have concerning their image and their abilities to perform tasks in the most diverse areas of life. And this image of themselves, when it comes to adequacy or inadequacy of the body, reverberates in evaluative and organizational aspects to make decisions and choose behaviors.

Considering as a reference Shavelson and Bolus (1982), it may be stated that the assessments made by people who are significant in the life of the adolescent provide the basis of perception about their behavior, “[...] *in this aspect, it is recognized that the human being is led to develop a form of mirror phenomenon, in which the individual tends to observe himself the way others consider him [...]*”⁹ (VAZ-SERRA, 1988, p. 101).

In this context, it is considered the teaching role in mediating and facilitating processes and experiences with positive and realistic feedback of the adolescent body related to relational aspects, values, abilities and attitudes, human rights, image and body integrity, reproductive health and sexual behavior.

Adolescence in mind

To be able to understand human development, especially among young adults, is of paramount importance to study the cognitive aspects and the thought formation. Papalia and Feldman (2011) address the Piaget's stage of formal operations, the changes in information processing, language development, and moral reasoning (Kohlberg's theory).

The stage of formal operations described by Piaget (2012) is considered when the individual comprehends beyond the here and now, when they have the capacity for abstract thought, understand representations and symbols, and imagine possibilities and hypotheses. This manner of thinking is perceived around age 11 and 15.

Access to information and individual experiences contribute significantly for the cognitive development of a child. Several researches describe the existence of two categories of measurable change in adolescent cognition, the structural change and the functional change. A study on structural change by Eccles, Wigfield and Byrnes (2003) includes the increasing capacity to memorize, to deal with problems and to make decisions, and it can be classified in declarative knowledge (knowing that...), procedural knowledge (knowing how to...) and the conceptual knowledge (knowing why...). On the other hand, the functional change is described as the processes for obtaining, handling, and retaining information so they can learn, remember and reason.

Language development is another aspect that express the level of cognitive development. There is an increase in vocabulary according to reading habits and the use of abstract thought, in such a way that adolescents “[...] become more conscious of words as symbols that can have multiple meanings; they enjoy using irony, puns, and metaphors” (PAPALIA; FELDMAN, 2011, p. 374).

Another aspect of adolescence in mind is the development of moral reasoning. Kohlberg (1992) presents a study based on the ideas proposed by Piaget on the moral development of individuals, in which is possible to identify three levels and six stages that represent how individuals deal with a moral dilemma. At level 1, *preconventional morality*, morality is linked to obedience for fear of punishment; level 2, *conventional morality*, is characterized by observing the social conventional and, subsequently, the general norms and laws; and level 3, *postconventional morality*, whose premise is the universal ethical principles (PAPALIA; FELDMAN, 2011).



The various ways of thinking about morality and of dealing with conflict resolution modifies over the years according to the experience of children and adolescents with parents, groups of friends, experiences in school and according to their cultures, that is, contact with the world around them.

Characterizing the cognitive development of the adolescent is also considering the changes in the processing of information in terms of speed and quality, since it is in this period of human development that the cognitive capacities may be intentionally controlled, and this implies that adolescents “[...] *likely can hold in mind several dimensions of a topic or problem simultaneously, whereas younger children are more prone to focus on only one dimension*” (SANTROCK, 2014, p. 102).

Thus, in terms of executive functioning in adolescence, the metacognition and high-complexity cognitive processes as decision-making, cognitive control, and flexible and critical thinking emerge through the maturation of the brain circuits and assume quality in personal and interpersonal experiences in the social environment.

To comprehend the cognitive development in its fullness assists the understanding of the adolescent behavior in the exposure to risk, in judgments, in self-regulation of the learning process, and in the formation of critical positions against attitudinal, educational, relational, and affective demands.

Adolescence in affection

Henri Wallon (1995) approach human development based on the interdependence of biological factors, personal attributes, and conditions of existence conceiving a psychogenesis of a complete person in the affective, cognitive, and motor dimensions.

This implies rejecting the biological connections as the only explanation for human affective expressions and responses. According to the author, the organic structure responsible for the development requires cultural intervention to advance, in a dialectical functioning, at its own pace through non-linear stages.

Emotions belong to a different medium from the purely physical world; it is another plane on which they make their effects feel. Their nature is expressly the result of a trait that is essential to them: its extreme contagiousness from individual to individual. They imply interindividual relations; they depend on collective relations; their corresponding environment is that of living beings¹⁰ (WALLON, 1995, p. 122).

The pressures of society, the transformations of body and mind, the contact with different people, the phase of experimentation, the uncertainties, the fear of

social contact, anxiety, being under stress, family conflicts, drug abuse, and having a history of depression among parents, among other factors, endanger the affective dimension of adolescents. Thus,

[...] it is possible to think of affectivity as a broad process that involves the person in its entirety. In the constitution of the affective structure, the different modalities of discharge of the tone, interpersonal relations, and the affirmation of oneself contribute significantly, made possible by relationship activities¹¹ (WALLON, 1995, p. 14).

That is why, beyond teachers and classroom instructions, a relationship is also required between individuals (children/adolescents) and parents, who should also guide their children. This is the idea advocated by Youngblade *et al.* (2007), the idea that growth is not only in physical terms, but also cognitive, social, and emotional, where autonomy and self-esteem are developed, since young people who have supportive relationships with parents, the school, and the community tend to develop in a positive and healthy manner. In this study, the authors distinguish only biparental and single-parent families, with no reference to the gender of the family organization. Those who do not receive support and education, according to Eaton *et al.* (2008), have their physical and mental well-being endangered, with high mortality rates due to accidents, homicides, and suicides.

In adolescence, the relationship between parents and children undergoes some weaknesses as the stages of development are contradictory, because, while they must become independent, they must also establish a relationship with their parents, thus causing a pressure for autonomy and a conflict to maintain the connection/attachment to parents (BEE; BOYD, 2011).

Social relations of adolescents in school and in the family allow the structuring of their affectivity through the social space given the opportunities of personal expressions of existence. Hence the relevance in considering the learning process as a complex action of psychic reception of unique construction. Then, to adults, representative figures in the life of adolescents, whether they are parents or teachers, should avoid reducing the adolescent expressions to independent fields of action.

In the school environment, affectivity should be considered as a factor of intelligence mobilization, so that the expressions of subjectivity are connected to the learning process. Those who learn, the adolescents learners, must be known in all their dimensions, comprehended in all their complexity and included in activities compatible with their completeness. According to Wallon (1995, p. 42) considering

[...] the 'contagious' character of emotional states, teachers may be more attentive to the group environment that they are able to establish in the classroom, as well as to the importance of their own emotional manifestations, which will surely affect the children under their care. We mean, therefore, that it is not about seeking the control of the conditions in the classroom through coercion of the expressive manifestations of the students, but of the better understanding of their meaning for a management that, incorporating the affective dimension, enables an increase in the quality of the learning process.¹²

Therefore, school educational actions, from the perspective of the complete person, should allow teachers to comprehend themselves as a relational unit with the learner, aware of their role as facilitators of the individuation, because, "[...] *including in the teacher's decision not only considerations related to the cognitive, but also their impact on the motor and the affective*"¹³ (MAHONEY, 2010, p. 10), enhances the search for new meanings and qualifies the evaluative perception of oneself.

Adolescence in the curricular perspective of Science Education

Whereas school is the first formal education space, responsible for guiding students in a gradual, active, and critical manner, the study of official educational documents that guide the pedagogical actions is important as they consider the dynamics of physical, cognitive, and social development of the human being.

The National Curriculum Parameters (1998) for Elementary and Middle School in the field of Natural Sciences present concepts related to the human being and to health so that educators may comprehend and have as a base the orientations cited in this for the preparation of their classes.

The NCPs (BRASIL, 1998, p. 102) present some proposals that can explain the current and relevant topics on the instruction and development of human beings in their different phases, so that they are able to preserve their health and understand the functions of each part of their bodies. The creation of pamphlets, collective texts, communication of information, presentation of tables, anatomical atlas, experiments and simulations, among others, are proposed.

Comprehending the existence of the human being also requires understanding the space in which he is inserted and the other agents involved in the evolution, that is, studying other living creatures. The NCPs (BRASIL, 1998, p. 103) suggests that the students should learn the function of the cellular respiration of living

beings and how the process of obtaining energy operates, whether by bacteria or fungi in plants and animals, including the process of photosynthesis (use of light and release of oxygen).

It is also important that the students understand the relationship between sensation and emotion, and the regulatory processes and functions of the nervous and glandular systems. For this to happen, guiding and coordinating the teacher is fundamental, as it is possible to read in the NCPs:

Regarding the regulatory functions, the students will be able to investigate, again with the coordination and help of the teacher, processes related to the balance of the body and to the voluntary locomotion, to the circulation and breathing, processes regulated and controlled by the nervous and glandular systems, closely linked to sensory perceptions and emotions¹⁴ (BRASIL, 1998, p. 103).

Thus conceiving the integration among the most different systems of the body and the influence that each one have on the other, the actions and reactions, as well as the balance between them (BRASIL, 1998, p. 103).

The similarities and differences between the human being and other living creatures are then possible to be perceived. One of the differences cited in the NCPs (1998) is the capacity of reasoning by the human brain and its “[...] *ability to process and respond* [...]”¹⁵ to stimuli provoked to the human brain, triggering emotions, behaviors, and habits (BRASIL, 1998, p. 104). Hence,

The context of studies of the brain, of the human mind, is also the field of behaviors, emotions, the formation of habits, and other subjective issues, related to values, even more evidently than in other studies of the human being¹⁶ (BRASIL, 1998, p. 104).

It is necessary to understand then how is the development of the human brain, when it is fully developed, and when it is still undergoing the maturation process. Considering the NCPs (1998) and the work of Papalia and Feldman (2011), it is evident the importance of clarifying the biological and social transformations for young people, because, differently from what was previously believed that in puberty the brain had already fully developed, it is now understood that the “[...] *dramatic changes in brain structures involved in emotions, judgment, organization of behavior, and self-control take place between puberty and young adulthood* [...]” (PAPALIA; FELDMAN, 2011, p. 360).

Therefore, in order to approach the ways of life of the individual, it is suggested that the students be informed about the risks and consequences of their actions,

such as the involvement with violence due to drug abuse (alcohol, barbiturates, tranquilizers, antidepressants, and narcotics), and also unwanted pregnancy in adolescence (BRASIL, 1998).

Hence the importance of orientating young adults, as the development of the brain is bidirectional and based on the cognitive stimuli that is submitted throughout its formation, so that the activities and experiences of the adolescent are the determining factors (KUHN, 2006). In other words, when young adults are stimulated to think orderly and to control their impulses, they will continue to act as this even in adulthood.

The relevance of approaching controversial topics by teachers is also noted, presenting the necessary information as well as discussing the values involved in the attitude taken, emphasizing that the acts are voluntary, the body is a totality, and the imbalance at a certain point affects the balance of the whole (BRASIL, 1998).

Numerous aspects regarding the human body may be identified in the NCPs (1998), as its formation, breathing, generation and distribution of energy, nervous and glandular systems, brain stimuli, balance and degeneration (diseases), besides the comparison made with other living beings.

Characterization of human beings and the environment is understood from the organization of cells (plasma membrane, cytoplasm, and genetic material) of unicellular and multicellular organism as well as the maintenance and evolution of species, and the reproductive process of both sexual and asexual beings.

Some key aspects are emphasized, such as asexual or sexual processes, existence of specialized reproductive cells (gametes), internal or external fertilization, the various forms of protection for the development of the embryo, and the care of parents with their offspring, locating the human being in these discussions¹⁷ (BRASIL, 1998, p. 106).

From there, there is the didactic sequence of concepts related to human reproduction and hormonal changes linked to sexual maturation, process that denominated puberty. According to the NCPs (1998), these changes should be approached in order to clarify any questions about the theme that adolescents may have, and contribute to a healthy development and to health preservation. For these matters are closely associated to pregnancy and contraceptive methods, contributing to the prevention of sexually transmitted infections.

Therefore, with regard to sexuality, the NCPs state that

[...] the information must be clear and objective combating prejudices that hinder development and valuing respect for one's own body, wills, and doubts, as well as respect for the body and feelings of partners from the perspective of mutual respect and coexistence in solidarity¹⁸ (BRASIL, 1998, p. 106).

Thus, many are the aspects mentioned in the NCPs that should be considered for the formation of the human being in different areas and various sectors of society. The human being in the biological, social, and cultural aspects, in the interpersonal relations, in the relationship between the subject and the family, the group of friends, and the development of ethical aspects for his role in society as a critical citizen.

Methodology

This study presents an empirical nature, which is based theoretically and conceptually in the fields of Science Education and Educational Psychology. A descriptive character was also assumed in order to analyze the content of the speech of 38 students about their human formation of knowledge, values, and attitudes related to the preservation of their health and physical, mental, and relational well-being.

To achieve the objective of the research, the data were collected through focus groups with speech recorded in audio, with the signing of the Informed Consent Form by the parents or guardians. A group of students specific to the locality was chosen: students regularly enrolled in the 9th grade of a public school in the municipality of Porto Nacional, Tocantis (Brazil), in order to form two focus groups with 19 students each.

Concerning the composition of the groups, they were homogeneous regarding the life conditions of the participants, but not necessarily in attitude. According to Flick (2013), the key to the comparisons made with the data is in how the sampling will be determined, in which the choice of a qualitative sample reflects the diversity within the group or population under study.

The interest in the focus group as an instrument for data collection is given to the extent that “*compared to the individual interview, there is a gain regarding the capture of cognitive, emotional, ideological, and representational processes and contents*”¹⁹ (GATTI, 2005, p. 10). The interactions that occur in the group have their focus broadened, providing the possibility of observing the process in action

through the exchanges among participants, individual and collective reactions, in the exchange of opinions.

It is important to emphasize that in the focus group the unit under analysis is the group itself. Hence positions, opinions, and ideas, even if not unanimous, for the analysis, interpretation, and discussion of the results, shall be referred as from the group (GONDIM, 2002).

Five assumptions were adopted in this study:

(1) that people themselves are a valuable source of information, including information about themselves; (2) that people can report on and about themselves, and that they are articulate enough to put into words their thoughts, feelings and behaviors; (3) that people need help in “mining” that information, a role served by the interviewer, or researcher, who “focuses” the interview in the focus group interview; (4) that the dynamics of the group can be used to surface genuine information rather than creating a “group think” phenomenon; and (5) that the interview of the group is superior to the interview of an individual (LEDERMAN, 1990, p. 118).

The discussion groups were guided by 6 questions:

Question 1: What do you see when you look in the mirror?

Question 2: What is “yes” or “no” regarding your body?

Question 3: Who do you seek for advice/guidance?

Question 4: What are your references for right and wrong behaviors?

Question 5: What does risk behavior in adolescence mean?

Question 6: What kind of support do you receive at school?

After collection, the data were enumerated, in which the presence of a significant element was adopted as an indicator of meaning from the goals of the analysis. The enumeration was followed by the categorization composed of two parts, the inventory and the classification, this was necessary to ensure the condition of mutual exclusion, homogeneity, relevance, objectivity and fidelity, and productivity.

As a method for data analysis, the Content Analysis by Laurence Bardin (2016) was applied, and the intention was to bring to comprehension the speech of the students, conceiving the language as transparent.

Franco (2018) indicates three assumptions for data analysis: *a. Each message, whether written, oral or even sensory, has potentially a large amount of information about who originated it. Regarding their beliefs, world conceptions, “class interests, psychological traits, social representations, motivations, expectation etc.”*²⁰ (FRANCO, 2018, p. 25); *b. The message content is selected by the author based on social references in which he/she is inserted, where education as social practice may be included; c. The theory presented guides the conception of reality (conscious or ideological) of the author, and this “[...] is filtered through the speech of the author and results in extremely important implications, for those who propose to do content analysis”*²¹ (FRANCO, 2018, p. 26).

The analysis occurred in three stages established by Bardin (2016): *Pre-analysis*, which sought the operationalization and systematization of ideas through the elaboration of a scheme for the development of the successive operations, and thus aimed at the organization; the *Exploitation of the Material*, which consisted of coding operations, discounts, and enumerations; and the *Results Treatments, Inferences, and Interpretation*, in which the raw data were treated in order to be signified and validated.

Through Inference and Interpretation, the more in-depth contents presented in the speech of the students were identified and comprehended.

The content was coded with the non-grammatical unit “*The Theme*”²² (BARDIN, 2016, p. 105) as record unit. Its choice is justified by being considered the most useful record unit when it comes to content analysis, as well as the possibility of analyzing entire documents, or parts, to determine values, beliefs, attitudes, among others. On this, Franco (2018, p. 42) states that a

[...] thematic question incorporates, with greater or lesser intensity, the social aspect attributed [...] related to the meaning of a word and/or about the connotations attributed to a concept. And this, of course, involves not only rational components, but also ideological, affective, and emotional.²³

Thus, the investigation of the speech of the students from a multiplicity of perspectives implies the understanding of the context and the description of “[...] the logical structure of its constituent expressions, and ascertain its associations, connotations, denotations [...]” (KRIPPENDORFF, 2018, p. 22).

Lastly, in the inference phase, the analysis had as a guide the meanings that the message provided, considering with this the legal aspects of Science Education,

the psychological foundations of human development, along with the perspective of education for human formation.

Analysis and discussion

Self-image, self-esteem, and variation factors

This category has as its theme the articulation of biological and sociocultural factors in the composition, both of the perceptions and of the behaviors, in response to the stimuli of the environment. The following excerpt presents this connection:

I see a person who will have a bright future! A very bright future ahead! I believe in myself! When I look at myself, I see that I need to have more and more confidence in myself, right?! Because in the world we are living is hard to be confident. And the first characteristic of being a person that has a well-being is to believe in yourself.²⁴ (Focus Group 1).

For self-image, the research came across a high frequency of the theme *body image* as defining adolescence, which points to a common connection, since much of the existing literature points to this link of the phase with body image (SHAFFER; KIPP, 2012; PAPALIA; FELDMAN, 2011).

However, despite the positive expression of acceptance, the content of the speech of the students continues to oppose a linearity. Self-image gains a variation according to the mood and this interferes with self-esteem. The fragments bellow present this indication:

Yeah, it depends on the day, right? Because there's that day that you say: girl, I need to get my eyebrow fixed.

She gets stressed... Me, when I'm like this, I don't want to be with me much... I'm just too lazy to dress up. (Focus Group 2).

The indications of this content are that the declared self-image corresponds to the perspective of biopsychosocial development, as emphasized by Cavalcanti (1988), because it covers body, attitudinal, and emotional changes, which interacting with the social environment, both how they see themselves and how they see reality may be modified.

In this category, the perception of the body presents mood variations and shifting states of mind, speech content corroborated by Aberastury and Knobel (1971), who in their ten essential aspects to characterize adolescence, still add other aspects,

“[...] 7) Fluctuations of the mood and the state of mind; 8) Contradictions in the way of thinking and acting where, in this manner, the so called normal feelings of grief in this stage of development are facilitated [...]”²⁵ (ABERASTURY; KNOBEL, 1971, p. 53).

The perception of the focus groups on the different production processes of femininity and masculinity also emerged as an indicator factor of the development of self-image. When questioned about their self-image, girls and boys were emphatic in answering that gender determines individual capacities, their possibilities of doing and being able to do.

Specifically for girls, the consequences of hormonal variation are introduced as part of the theme and compose the multifaceted argument of conception of self-image. The oscillation occurs, for example:

When we have cramps... We get more stressed.²⁶ (Focus Group 2).

According to the students, self-image of boys is not subjected to the alterations that girls declare to have. The content of this unit of analysis is that for boys, in the school environment, there are fewer concerns about daily approval of physical appearance and maintenance of a good state of mind.

And therefore, still according to the speech content of the boys in the focus groups, the dependence of the state of mind to signify and to experience well-being directing their behavior before peers is declared nonexistent:

I'm never sad.²⁷ (Focus Group 1)

This is justified by the female members of the groups when they generalize from the behavior of a colleague, as excerpt:

That's right, teacher. That boy makes us laugh.

We may be on a bad day.²⁸ (Focus Group 1).

The category brings us the reference to the field of Science Education and its teaching objectives. These factors of variation of self-image and self-esteem referred in the category must be met and discussed in the 9th grade, based on the principle proposed in the NCPs – the reconstruction of a social conscience that exceeds environmental questions in isolation, leading the students to *“[...] perceive human life, their own body, as a dynamic whole, which interacts with the environment in*

*a broad sense, because both biological heritage and cultural, social, and affective conditions reflect in the body*²⁹ (BRASIL, 1998, p. 22).

Since this is a study focused on Science Teaching, or the various forms of creating connection between it and the events of life, as a way of making real the content to be taught in classes, within the educational process, it is necessary to remember that, according to what the NCPs (1998) formalize, they present concepts about the human being and health so that teachers may understand and have as guidelines the orientations mentioned in this for the preparation of their classes.

In this case, NCPs (1998) present some proposals that may explain current and relevant topics on the instruction and development of human beings, previously mentioned in this study, in their different phases, so that they are able to preserve their health and understand the functions of each part of their body. The creation of pamphlets, collective texts, communication of information, presentation of tables, anatomical atlas, experiments and simulations, among others, were proposed. Therefore, making use of pedagogical resources capable of bringing to the adolescent students contents that favor the understanding of the biological and emotional transformations that they undergo.

Thus enabling them to know themselves and recognize their responses to the stimuli of the environment, the body transformations, and the interaction with social and family organizations, in an attempt of making this period as smooth as possible.

Asymmetry of the social position of the Adolescent body

This category emerged from the theme related to the asymmetry of the positions that the bodies of boys and girls should occupy in society, separately.

In several occasions during the work with the focus groups emerged the idea of girls being seen as objects of desire. This topic of debate is taken by Foucault (1988), in what refers to power relations. For the author, the body within a power structure is not able to find itself in position of exteriority relative to the other types of relations, (economic processes, relations of knowledge, sexual relations), however, these relations are close to it, producing instant effects of the shares executed by the subject, causing inequality and imbalances, these internal conditions. Thus, the power relations are the superstructures, able to exert the prohibitive role, of restriction, or reduction, continuously producing this effect (FOUCAULT, 1988).

Based on this, it raises the question of the female adolescent body as an element culturally removed from power, in asymmetric relations, evidenced in the behaviors experienced in everyday life, almost not a position. The following excerpt presents part of the speech of two girls in Focus Group 1:

The point is that, for a woman, it's already discriminating... That these days they say that women are sluts... Not for men, it's like normal. But if you come and see a girl in the conversation... That's wrong... They're hooking up... They're doing something wrong... It's really hard out there, you guys.

That's because people judge women, for example if there are five men and a woman, they judge them... Then they say: that girl is there, that's because she is interested in someone, she's a whore, a slut... They use these ugly names... Not for the man... He's a player... He's a lady-killer. They see them different.³⁰ (Focus Group 1).

For girls, it is taken here the liberty to name them, also the fact of seeing them as objects of desires of others, this is a situation that although culturally standardized, may represent a difficulty, a high stress factor and direct interference to their self-image.

In this panorama relative to the adolescent body, the theme still emerges, the feeling of inferiority in relation to their opposite, the male body. The excerpts present the speech related to the prohibitions made to the female body.

Take off the shirt among people...

Women do that too...

Women don't do that... Men can do... If a man has a nice body people praise him, now if a woman takes off her shirt is absurd.³¹ (Focus Group 1).

What in fact became explicit in the speech of the focus groups was how much the gender influence directly the realization of certain action, as quoted in this excerpt where the student denotes the act of taking off a shirt a *normal* action for men and something *vulgar* for women. Faced with this, we denote a question of social position of the female body since it is seen as an object of *sexual desire*.

Also relevant is the adolescent relationship with the body, with what generates satisfaction and fullness in relation to its measurements and appearance, presented in the link: youth and aesthetics. Following there is an argument that illustrates this question:

There was a girl who studied with us, who had the ideal body and emitted happiness wherever she went, but she left school.³² (Focus Group 2).

According to the focus group, well-being is directly related to appearance, well-being is synonymous with idealization, since culture defines women as an inconstant social being. This because there is a narcissistic cult to the body, an overestimation of the physical body, and, as a consequence, a depreciation of the psychological and cognitive capacities of the subject will arise. Achieving the ideal body, achieving the perfect measurements, is the new goal for adolescents in contemporary society that increasingly imposes a beauty standard, significantly impacting the development of their personality (AGUIAR, 2014)(AGUIAR, 2014).

The asymmetry also presented itself in the content of the experiments, such as drinking, gambling, and romantic relationships. Again, the imbalance of the consequences is argued and naturalized – boys are allowed, but for girls there is a naturalization of the risk of rape and unwanted pregnancy.

In the speech of the groups, a clear differentiation emerges between the types of violence/risks for the genders, the girls inevitably associate the violence of gender to the consumption of alcohol and other drugs, who sometimes feel difficulty to verbalize, there is clearly a restraint of girls regarding types and classification of violence/risks, even if this behavior may be an individual outgrowth.

From these analysis, the comprehension that the school and its curricula could contribute greatly to the expanded understanding of these situations is enlarged, especially in Science Education. According to the NCPs (1998), the teacher should mediate the study of the human brain as well as “[...] *the field of behaviors, emotions, the formation of habits, and other subjective issues, linked to values, in an even more evident manner that in other studies of the human being*”³³ (BRASIL, 1998, p. 104).

For this aspect related to the behaviors triggered by the recognition of the body in transformation, as well as the apparent lack of ability to deal with these transformations, as was evident when dealing with the focus group, therefore, it is necessary to establish a link with what determine the NCPs. Understanding that a large part of the perception of the body is given as a response to the relationship with individuals that undergo the same transformations and in an environment that puts them in direct relation always, also because of the understanding that it is in the brain that much of the transformations to form the individual take place, it is necessary that the science teacher then, promotes mediation on the development of the human brain and its maturational implications on social behavior (BRASIL, 1998; PAPALIA; FELDMAN, 2011).

The importance of clarifying the biological and social transformations to young people is highlighted, because, unlike what was believed at the beginning of the last century that in puberty the brain had already fully developed, nowadays studies indicate that these transformations continue to be processed in a severe way in the brain structures involving emotions, relative to the judgment, organizing the thought and developing mechanisms of self-control, these process until adulthood (PAPALIA; FELDMAN, 2011).

The value of the secure source in decision making

This category clearly highlights the lack of reliable sources for decision-making. Various students claimed to base their decision on experimentation for the lack of this source.

Aspects related to the environment and the attitudes presented by people as influencing factors in the behavior of adolescents were identified. The contents that refer to the attitudes presented, behaviors that are influenced by figures and representations able to support the decisions of adolescents.

That presented, it leads to the understanding that an emotional support is something representative at this stage of life. The excerpt bellow, answer to the question of the focus group mediator (*But who, apart from your mother?*), illustrates exactly what makes this search for a decision making inaccurate, since the sources are not reliable or often there are no sources.

Like... A teacher, a neighbor, when they're someone older and have already been through the same trouble I'm having...

And someone who will be able to guide me, right? Someone who will know how to explain the situation, how to get out and... that's it. A friend too. (Focus Group 1).³⁴

According to this excerpt, it is evident that the affective and relational bonds can be facilitated with the type of relationship established in a group or individually. In the frequency of this unit of analysis, in both groups, differences emerged between weights of bonds from safe sources for boys and girls, at different occasions, conducted in the speeches. For girls, these bonds have different weight than they have for boys, rather it is a different characterization, as, in the focus groups, it was noted an inclination of young women to maternal figures, aunts, grandmothers, or

female figures. The speech of the group denotes teachers as an alternative source for decision-making.

The boys seek, as was evident in the focus groups, the father, or representative male figure able of fulfilling this role. Related to this, the researcher questioned about which representative figures they seek as a source of self-revelation, to which the groups answered that only friends.

It was evident, however, a speech about the school as a place that does not present reliable sources for decision-making. In the frequency of this theme, the students declared that the school is not a place of adolescence, which is a difficult period, according to them, of confrontation and which brings, according to the speech of the groups:

[...] measure of daily sadness.³⁵ (Focus Group 2).

For this environment, the criticism was harsh and considerable, as a space that by virtue should offer safety and comfort to adolescents, however classified hostile. That is, not a place of speech for adolescents. The following excerpt illustrates a sequence of the speech of the adolescents related to the lack of educational orientation in the school environment in response to the question proposed by the researcher:

Does it exist or not? Your classmate said it exists... but do you feel free to expose problems, questions?³⁶ (Researcher).

Not for me, no.

There's a lot of stuff that's like... 'I don't want to talk to her or anyone in my family', so I'm gonna go find a teacher that I trust.

I don't like to talk...³⁷ (Focus Group 1).

Don't you like to talk?³⁸ (Researcher).

No, I don't talk.

It's not all the teachers that I trust.

Rarely...

And when the school speaks, it reduces adolescence to puberty or deals with the theme, bullying, depression etc., impersonally.

They've already spoken here, but... some teachers didn't like it. Because we were talking later, after the class we had about puberty, we were talking... Because we were enjoying the subject, there were many questions...³⁹ (Focus Group 1).

These arguments complement the argument that the school could be a space of confidence for the adolescent, but paradoxically does not fulfill this role:

Ah, I get it! [...] Is school a safe place to talk about these adolescent issues?⁴⁰ (Researcher).

No... No...

Not all of them...

Not always...

Not once...⁴¹ (Focus Group 1).

According to the excerpt, school deals with monthly themes impersonally and students have daily and personal needs, seek school support and it does not have adequate professionals able to deal with this theme. Students feel the necessity for this support, as illustrated in the following excerpt:

[...] it is not a place of listening for adolescence. There is no professional who meets the daily personal needs [...]⁴² (Focus Group 2).

It should be emphasized the school space as an important aspect of the research. As one of the privileged places of adolescence due to its excessive permanence in one of the most important periods of life for the formation of personality, it is important to bring to this reflection,

[...] considering the vertiginous changes that take place in the functioning of society, it should be questioned the commitment of the educational process especially of the adolescent student, what is hidden, in fact, is inactivity and indolence in seeking interventions more appropriated to the impasses that present themselves in the various social institutions today, including school.⁴³ (OLÍMPIO; MARCOS, 2016, p. 500).

The neglect of the dimension of adolescence puts these young people under the weight of an atmosphere charged with prejudice and incomprehension, which generates suffering and mistakes concerning decisions that need to be made in this period of life.

The focus groups denounced the lack of real involvement of the school with the stage of development that the adolescents are experiencing, which allows us to question how teacher training and teaching practice itself are sufficiently significant to contribute to the educational actions of: physical development (issues related to health, physical issues, sexuality, and reproduction), cognitive development (schemes of thought organization and moral reasoning), still specifically, of social cognition

in the biological-social-historical context of identity changes, sexual behavior, and fraternal and loving relationships.

Conclusion

This research presented as general objective to analyze in the phenomenological perspective, knowledge, values, and attitudes in adolescence from the speech content of students, relating them to Science Education.

Thus, the difficulty of delimiting the theme and the necessity to rethink, study and research more about adolescence and the social-historical, psychological, social, biological, and cultural transformations that imply in the development are here comprehended. Three categories emerged by the frequency of the thematic analysis unit. Applying the concepts of Content Analysis, the first category was identified, named *Self-image, self-esteem, and variation factors*, in which the gender factor is taken as a reference to indicate the variations of self-image and self-esteem, being naturalized the cultural meanings of body image and mood swings as inherent in the image of well-balanced boys and unstable girls. In the category named as *Asymmetry of the social position of the adolescent body* there is a self-assessment of the physical appearance in correspondence with the cultural standard of beauty and the ideal body, focusing on the values and judgments on themselves, may generate feelings of inadequacy by not matching the expectations of the dominant model. In this category the students articulated that the female body occupies lower positions than the male body, thus being a gender issue. In view of these considerations, it is noticed that the idealized object is the perfect body to generate well-being. In the third category it was identified that the school does not deal with themes related to adolescence and does not have a reliable source for guidance, besides, in the family environment the students articulated that they do not consider a good source for decision-making.

In this research it is evident that the students emphasized multiple times the desire to have a safe reference of decision-making in school and that the experiences of school actions bring measures of sadness, as depression, bullying, and suicide. Regarding the productions of meanings that move beliefs about the human values, political and religious perspectives of contemporaneity, present in the school environment, a reflection is due at this point: this period should be based only on

these adjectives or it should be the responsibility of the science teacher, along with school, to change that reality?

Considering that each young person has his or her time and form of development, his or her social physical, and cognitive construction, is of paramount importance counseling and guidance; the behavior of the adolescents reflect their relationship with their parents, the group of friends, with society, and especially with themselves. And in this sense, what has been the actions of teaching professionals, in Science Education, related to adolescence for students in its multiple dimensions? To what extent does education as a social practice intersect other educational agents (school community, management, counseling etc.)?

It is then possible to perceive how biological and social factors influence the personal, cognitive, educational and even professional formation of young people from childhood, through adolescence and adulthood.

Lastly, it is understood that the theme is extremely important and the inquiry is continuous, to comprehend the formation of the adolescent in different aspects, to build an individual with better orientations for this stage, the adolescence.

Adolescer em corpo, mente e afeto: um estudo sobre desenvolvimento de valores e atitudes a partir do Ensino de Ciências

Resumo

Os Parâmetros Curriculares Nacionais (PCNs) do Terceiro e Quarto Ciclos do Ensino Fundamental das Ciências Naturais referenciam ações educativas que significam a adolescência considerando a necessária interação entre a marca orgânica, a puberdade, e os sentidos produzidos cultural e socialmente sobre o corpo e a identidade nesta fase do desenvolvimento humano. A docência em Ciências implica na construção relacional de conhecimentos, valores e atitudes para um adolescer que responda às demandas sobre si, de modo crítico, cognitiva e afetivamente, para manutenção da integridade corporal, da saúde reprodutiva e do comportamento sexual. Esta pesquisa teve por objetivo analisar os alcances das ações e práticas na educação em Ciências na adolescência a partir do conteúdo da fala de estudantes do 9º Ano. Para isso utilizou-se como método de coleta de dados, o Grupo Focal e como instrumento de análise, a Análise do Conteúdo proposta por Bardin. Emergiram três categorias: na primeira, o fator gênero é tomado como referência para indicar as variações de autoimagem e autovalor atribuídos a si mesmos pelos adolescentes; na segunda, autoavaliação da aparência física está relacionada aos padrões culturais de beleza e de ideal do corpo, recaindo sobre os seus valores e julgamentos, potencializando sentimentos de inadequação pela não correspondência às expectativas do modelo predominante; e a terceira, assinala a ausência de uma fonte segura na escola para



tomada de decisões. A pesquisa concluiu, neste contexto, que a escola não é um lugar de fala para o adolescente, por tratar de temas ligados a adolescência com impessoalidade, centrando-se no viés biológico da puberdade e negligenciando as questões psicossociais, emocionais e culturais que o adolescer demanda.

Palavras-chave: adolescência; cultura; Educação em Ciências; puberdade; subjetividade.

Notas

¹ Parâmetros Curriculares Nacionais (PCNs).

² “O Tema”.

³ 1. Nos meninos: modificação no timbre da voz; aumento da largura dos ombros; aparecimento de pelos no rosto, axilas e região pubiana; crescimento do pênis e testículos; e o surgimento da primeira ejaculação.

2. Nas meninas: desenvolvimento das glândulas mamárias; aumento dos quadris; aparecimento de pelos na região pubiana; e o surgimento da primeira menstruação, chamada menarca.

⁴ “um termo sociológico que, sob uma suposta base biológica, tornou-se de uso psicológico”.

⁵ “[...] reações psicológicas do jovem a suas mudanças físicas da puberdade e se prolonga até uma razoável resolução de sua identidade pessoal”.

⁶ “[...] é em torno desse ideal corporal que o adolescente vai se estruturando: entre o corpo temido e desconhecido, e o corpo perfeito e idealizado [...]”.

⁷ “[...] tem de si mesmo nos mais diversos aspectos da vida [...]”.

⁸ “[...] o universo de representações que o estudante tem das suas capacidades, das suas realizações escolares, bem como as avaliações que ele faz dessas mesmas capacidades e realizações”.

⁹ “[...] neste aspecto admite-se que o ser humano é levado a desenvolver uma espécie de fenômeno de espelho, em que tende a observar-se da maneira como os outros o consideram [...]”.

¹⁰ As emoções pertencem a um meio diferente do meio puramente físico; é outro plano em que elas fazem sentir seus efeitos. Sua natureza resulta expressamente de um traço que lhes é essencial: sua extrema contagiosidade de indivíduo a indivíduo. Elas implicam relações interindividuais; dependem de relações coletivas; o meio que lhes corresponde é o dos seres vivos.

¹¹ [...] é possível pensar a afetividade como um processo amplo que envolve a pessoa em sua totalidade. Na constituição da estrutura da afetividade, contribuem de forma significativa as diferentes modalidades de descarga do tônus, as relações interpessoais e a afirmação de si mesmo, possibilitada pelas atividades de relação.

¹² [...] o caráter ‘contagioso’ dos estados emocionais, o professor pode manter-se mais atento ao clima de grupo que ele tem condições de estabelecer em sua turma de alunos, bem como à importância de suas próprias manifestações afetivas, que, seguramente, incidirão nas crianças sob sua tutela. Queremos dizer, portanto, que não se trata de buscar o controle das condições em sala de aula a partir da coerção das manifestações expressivas dos alunos, mas da melhor compreensão de seu significado para um manejo que, incorporando a dimensão afetiva, possibilite uma melhor qualidade e aproveitamento da aprendizagem.

¹³ “[...] incluir em suas decisões não só considerações relativas ao cognitivo, mas também seu impacto sobre o motor e o afetivo”.

¹⁴ Quanto às funções reguladoras, os estudantes poderão investigar, novamente com a coordenação e ajuda do professor, processos ligados à equilíbrio do organismo e à locomoção voluntária, à circulação e respiração, processos regulados e controlados pelos sistemas nervoso e glandular, intimamente ligados às percepções sensoriais e às emoções.

¹⁵ “[...] capacidade de processar e responder [...]”.

- 16 O contexto de estudos do cérebro, da mente humana, também é o campo dos comportamentos, das emoções, da formação dos hábitos e de outras questões subjetivas, ligadas aos valores, de modo ainda mais evidente que em outros estudos do ser humano.
- 17 Destacam-se alguns aspectos fundamentais, como processos assexuais ou sexuais, existência de células especializadas para a reprodução (gametas), fecundação interna ou externa ao corpo, as várias formas de proteção para o desenvolvimento do embrião e o cuidado dos pais com os descendentes jovens, localizando-se o ser humano nessas discussões.
- 18 [...] as informações devem ser claras e objetivas combatendo preconceitos que atrapalham o desenvolvimento e valorizando o respeito ao próprio corpo, às vontades e às dúvidas, bem como o respeito ao corpo e aos sentimentos dos parceiros, na perspectiva do respeito mútuo e da convivência solidária.
- 19 “comparado à entrevista individual, se ganha em relação à captação de processos e conteúdos cognitivos, emocionais, ideológicos, representacionais”.
- 20 “interesses de classe, traços psicológicos, representações sociais, motivações, expectativas etc.”.
- 21 “[...] é filtrada mediante seu discurso e resulta em implicações extremamente importantes, para quem se propõe fazer análise de conteúdo”.
- 22 “O Tema”.
- 26 [...] questão temática incorpora, com maior ou menor intensidade, o aspecto pessoal atribuído [...] acerca do significado de uma palavra e/ou sobre as conotações atribuídas a um conceito. E, isso, com certeza, envolve não apenas componentes racionais, mas também ideológicos, afetivos e emocionais.
- 24 Eu vejo uma pessoa que terá um futuro brilhante! Um futuro muito brilhante pela frente! Eu acredito em mim mesma! Quando eu olho em mim mesma, eu vejo que eu tenho que ter confiança cada dia mais em mim, né?! Porque no mundo em que nós estamos vivendo é difícil ter confiança. E a primeira característica de ser uma pessoa tem um bem-estar é acreditar em si própria.
- 25 “[...] 7) Flutuações de humor e do estado de ânimo; 8) Contradições no seu modo de pensar e agir onde, desta forma, a elaboração de lutos ditos normais nesta fase do desenvolvimento é facilitada [...]”.
- 26 Quando tá com cólica... A gente fica mais estressada.
- 27 Eu nunca tô triste.
- 28 É verdade, professora. Esse menino faz a gente rir.
A gente pode estar num dia fracassado.
- 29 “[...] perceber a vida humana, seu próprio corpo, como um todo dinâmico, que interage com o meio em sentido amplo, pois tanto a herança biológica quanto as condições culturais, sociais e afetivas refletem-se no corpo”.
- 30 O caso é que para mulher já é discriminante... Que hoje em dia fala que mulher é rapariga... Já pro homem não, é como se fosse normal. Mas se chegar e vê uma menina na conversa... Ali é uma coisa errada... Tão ficando... Tão fazendo alguma coisa de errada... É muito difícil essa vida, gente.
- 31 É porque as pessoas olham pro lado das mulheres, por exemplo no caso de cinco homens e uma mulher, já olham com olho de julgo (sic)... Ai já falam: Aquela menina tá lá, é porque ela tá com interesse em algum, é uma puta, é uma rapariga... Usam esse nome feio... Já o homem não... É galanteador... É garanhão. Já olha diferente.
Tirar a camiseta no meio do povo...
Mulher faz isso também...
Mulher não faz... Homem já faz... Se um homem tem um físico bonito já sai elogiando, agora se uma mulher tira a camiseta é um absurdo.
- 32 Tinha uma menina que estudava com a gente, que tinha o corpo ideal e emitia felicidade por onde ela passava, mas ela saiu da escola.
- 33 “[...] o campo dos comportamentos, das emoções, da formação dos hábitos e de outras questões subjetivas, ligadas aos valores, de modo ainda mais evidente que em outros estudos do ser humano”.
- 34 Tipo... Um professor, um vizinho, quando é mais velho e que já passou pelo mesmo problema que eu...

- E vai saber me orientar né? Vai saber me explicar a situação, de como sair e... é isso. Um amigo também.
- ³⁵ [...] medida de tristeza diária.
- ³⁶ Existe ou não existe? A colega disse que existe... mas vocês se sentem à vontade para expor problemas, dúvidas?
- ³⁷ Pra mim não.
- Tem muitas coisas que tipo... 'Eu não quero conversar com ela, nem com alguma pessoa da minha família', aí eu vou procurar um professor que eu confio.
- Eu não gosto de falar...
- ³⁸ Você não gosta de falar?
- ³⁹ Não, não falo não.
- Não é em todos os professores que eu confio.
- Raramente...
- E quando a escola fala, reduz a adolescência a puberdade ou trata da temática, bullying, depressão etc., com impessoalidade.
- Já falaram aqui, mas... Alguns professores não gostaram não. Porque nós ficamos comentando depois, depois da aula que a gente teve sobre puberdade, ficamos comentando... Porque a gente foi gostando do assunto, tinham muitas dúvidas...
- ⁴⁰ Ah, entendi! [...] A escola é um lugar seguro para conversar sobre essas questões adolescentes?
- ⁴¹ No... No...
- Not all of them...
- Not always...
- Not once...
- ⁴² [...] não é lugar de escuta do adolescer. Não há profissional que atenda às necessidades pessoais diárias [...]
- ⁴³ [...] considerando as vertiginosas mudanças que se estabelecem no funcionamento da sociedade, convém questionar se o comprometimento do processo educativo especialmente do aluno adolescente, o que se oculta, na verdade é a inatividade e a indolência em se buscar intervenções mais apropriadas aos impasses que se apresentam nas diversas instituições sociais na atualidade, entre elas a escola.

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