COGNITIVE PSYCHOLOGY DEVELOPMENT IN THE EARLY ADOLESCENCE

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Abstract. "Teenager", a word that contains many kinds of impressions. Some people say that teenagers are a normal group, no different from other social groups. While some other parties consider teenagers as a group that often causes difficulties for parents. In addition to this opinion, there are also those who argue that youth is a potential that needs to be utilized. (Mappiare, 1982). However, the opinion of teenagers about his personality, then they will show a different impression. Some of them may speak of adults' indifference or indifference to their group. There are also those who will give the impression that their group is a minority with their own "world" and cannot be touched by their parents. Based on the impressions presented, it is very important that teenagers are a potential group to work with. This is because youth are a group that has responsibility for the nation and the future. In fact, in Indonesia, adolescent make up about a third of the total population. Especially in their youth, they have great vitality and patriotism. Thus, youth are the successors of the nation's hope. (Mappiare, 1982). Teenagers don’t really belong. They are no longer included in the children's class, but are not yet fully accepted into the adult class. Adolescents are between children and adults. Therefore, adolescence is often called the period of "identity search" or the period of "storm, storm". However, adolescence is a developmental period that is currently in the potential of childhood, both cognitively, emotionally, and physically. (Hartinah, 2008). The rapid intellectual development of adolescents in the way of thinking allows them to integrate into adult society, but it is also the most prominent feature of all periods. Continuity of intellectual development makes teenagers able to think formally. This stage allows teens to think more abstractly, test assumptions, and consider the opportunities available to them rather than just seeing them for what they are. Intellectual ability like this is what distinguishes youth from previous times. In addition, the development of certain talents or interests among adolescents also begins to order and begins to decline based on factors that affect both themselves and their environment. All teenagers more or less have certain special interests that include various types. Intellectual development and special talents or interests are part of cognitive development that occurs in adolescents. This cognitive development affects a person's way of thinking, analyzing a problem, and a person’s preferences for certain things.

Keywords: Cognitive, Emotional, Psychological, Teen

Introduction

Early adolescence is a period in which a child develops to the stage of becoming an adult that cannot be determined with certainty. Early adolescence falls around the age of 12–15 years (Yessy, 2015). At this time, adolescents begin to have the ability to absorb and use knowledge effectively reaching its peak because brain development reaches perfection. The nervous system that processes information is developing rapidly. In addition, during adolescence, there is a
reorganization of the neural circle of the frontal lobe (anterior hemisphere or central cleft). This lobe function is active in high-level cognitive activities, such as the ability to form strategic plans or the ability to make decisions (Sarwono, 2012). Adolescents also experience peak emotions and high levels of emotional development. The emotional development of adolescents shows a sensitive nature, their emotions are negative and uncertain (irritable, angry, sad and moody). Teenagers grow up in an unfavorable environment, their emotional maturity is hampered which leads to negative behaviors such as aggression, avoidance of reality (Faturochman, 2016).

**Cognitive Development in Adolescents**

Cognitive development is a change in mental abilities such as learning, memory, reasoning, thinking and language (Jahja, 2012). According to Piaget (in Santrock, 2001; in Jahja, 2012), a teenager is motivated to understand the world because of his biological adaptive behavior. According to Piaget, adolescents actively construct their cognitive world, where the information obtained is not directly accepted into their cognitive schema. Adolescents are able to distinguish things or ideas that are more important than others, and then they develop those ideas as well. A teenager can not only organize what is experienced and observed, but also can process his way of thinking to come up with a new idea. The emergence of adolescent thinking opens up new cognitive and social horizons. Their thinking is increasingly abstract (adolescents think more abstractly than children), logical (adolescents begin to think like scientists, who devise problem-solving plans and consider solving problems systematically) and idealistic (adolescents often think about what is possible, thinking about its characteristics), (ideas of themselves, others and the world); better able to examine their own thoughts, what others think and what others think of them, and better able to interpret and monitor the social world (Santrock, 2002). Early adolescence (around 11 or 12 to 1 year), the transition period from childhood, provides opportunities for growth - not only in terms of physical, but also cognitive skills, knowledge and society (Papalia et al, 2008).

Along with these developments, adolescents are also influenced by the development of information technology, as at this time the development of information technology is very rapid and knows no age, both children, adolescents and adults all their daily activities always involve activities related to technology. This makes technological developments need to be taken into account because they can have both positive and negative effects on their users, one of which is that with the existence of information technology among teenagers, it makes them easy to access or explore new information or sources of knowledge that they want. The more information or knowledge they get, the more views and desires they want to achieve, especially related to future
orientation (OMD). Future orientation is a phenomenon of cognitive development that occurs during adolescence and is undergoing a transition process to reach adulthood.

In addition, during the period of adolescent development also includes cognitive development in adolescents, namely cognitive style, according to Witkin (Widia, 2012) stating that cognitive style is a way of functioning with fixed characteristics aimed at an individual in his perceptual and intellectual activities to find one’s feelings, perceive, remember, think and solve problems. There are four important Cognitive style characteristics, namely,

1. Cognitive style is concerned with form not with cognitive content. Cognitive style sees individual differences in aspects of thinking, solving problems, learning and relating to others.
2. Cognitive style as something pervasive. Cognitive style is a high-level invention that regulates and follows behavior in different situations.
4. Cognitive style is bipolar. This trait can distinguish the concept of Cognitive style from the intelligence and skill dimensions of others. Each Cognitive style has an adaptive value following certain circumstances. Therefore, every pattern of Cognitive style can be considered passive when it relates to certain circumstances.

**Emotional Development in Adolescents**

Hurlock (1990) argues that emotional instability makes it difficult for adolescents in their lives, that adolescents who can control their emotions will more easily lead successful lives. Therefore, teenagers need to have good emotional maturity, at least trying to control their emotions. Emotionally mature adolescents are adolescents who are able to cope with the pressures of life, both light and heavy (Meichati, 1983). Meanwhile, Hurlock (1980) suggests two characteristics of emotional maturity: (a) self-control, individuals can wait for the right time and place to manifest. Emotionally, (b) self-understanding, individuals have stable emotional responses that can vary from one person to another. one emotion to another. Individuals are able to understand what they feel and know the causes of the emotions they face.

Adolescence is known as the peak of emotionality (high emotional development). In the emotional stage, adolescents should be physically strong (not sickly and weak) and mentally strong. Because common sense is related to the emotional development of teenagers. Therefore, teenagers are strongly advised to exercise, maintain cleanliness/implement a healthy lifestyle. And it is also highly recommended to avoid things that can harm the youth themselves, both
physically and intellectually, such as drinking habits, especially to the most dangerous, namely drugs. Adolescents are in a period where many experience face in their development. Especially regarding the problem of adapting to the demands of the environment and society. At this stage, adolescents who have not been prepared to respond to their development tend to cause confusion and feelings of anxiety. Emotions that always fluctuate during adolescence are potential problems and problems that must be considered by parents and educators. Positive emotions such as pleasure, liking, love, and happiness have positive potential and can also lead adolescents to adopt positive behaviors. On the other hand, anger, disappointment, fear, anxiety, hatred and other negative emotions are emotions that can trigger various adolescent problems. Understanding adolescents and their emotional development is very important to help develop their potential and find solutions to the problems they face. Psychologically, adolescence is the age where individuals integrate with adult society, at this age children no longer feel below the adult level, but at the same level, at least in terms of rights. There are many effective aspects of (adult) social integration, which are more or less related to puberty. This includes major intellectual changes.

**Physical and Psychological Development in Adolescents**

Adolescence is a period of transition from children to adults. On this period, various changes occurred both hormonal, physical, psychological changes as well as social. This change happened very much quickly and sometimes without us even realizing it. Physical changes what stands out is the development of sex signs secondary, the occurrence of growth spurts, and changes in behavior and social relations with the environment. These changes may result in certain disorders or diseases if not watched carefully. Sexual maturation occurs through regular stages that ultimately lead the child to be ready to function fertility, adult males with spermatogenesis, whereas girls with ovulation. Besides, too there are psychosocial changes in children both in behavior behavior, relationships with the environment and interests with the opposite sex. Those changes too could lead to the relationship between parents and Adolescents become difficult when parents do not understand process that occurs. Changes in adolescent development this can be overcome if we study the process development of a child into an adult. During puberty, physical changes occur so that in the end a child will have the ability reproduce. There are five special changes that occurs at puberty, that is, an increase in height fast body (stimulate growth), sexual development secondary, development of reproductive organs, changes in body composition and changes in the system circulatory and respiratory systems associated with strength and stamina. Weight gain is mainly due to changes in body composition, in boys occur due to increased muscle mass, whereas in children women occur due to increased fat mass.
Changes in body composition occur because influence during puberty. Physical changes that occur rapidly and occur spontaneously sustainability in adolescents causes adolescents to aware and more sensitive to body shape and try to compare with friends same age. If the change does not take place directly smoothly then it affects the development psychological and emotional children, sometimes even arise anxiety, especially in girls when not prepared to deal with it. In contrast to parents, this situation can cause conflict if the child's process of becoming an adult is not understood well.

Psychosocial changes in adolescents are divided into three categories: stages, namely early adolescence, middle (middle adolescent) and late (late adolescent). The first period is called early adolescence or early Adolescence, occurs at the age of 12-14 years. On Early adolescence children are exposed to change fast body, accelerated growth, and changes in body composition accompanied by early growth secondary sex. Characteristics of the adolescent period is marked by the occurrence of psychological changes such as,

1. identity crisis,
2. unstable soul,
3. Improved verbal skills for expression self,
4. The importance of close friends/friends,
5. Lack of respect for parents sometimes rude,
6. Shows parental faults,
7. Looking for someone else to love besides parent,
8. Tendency to be childish and
9. There is the influence of peers (peer group) on hobbies and ways of dressing.

In the early teenage phase they are only interested in the present situation, not the future, while sexual feelings begin to arise shame, interest in opposite sex but still play in groups and start experimenting with the body like masturbation. Furthermore, in the early adolescent period, children also begin to experimenting with cigarettes, alcohol, or drugs. The role of the peer group is very dominant, they trying to form a group, behave same, look the same, have the same language and the same code or cue. The next period is middle adolescent occurs between the ages of 15-17 years, which is characterized by the following changes occur:

1. Complaining that parents interfere too much his life,
2. Pays great attention to appearance
3. Trying to make new friends,
4. No or less respect for opinion parent,
5. Often sad / moody,
6. Start writing a diary,
7. Pays great attention to the group playing selective and competitive, and
8. Starting to have a sad period of wanting to let go from parents.

In the middle adolescent period, they start to get interested of intellect and career. Very sexually pay attention to appearance, begin to have and change girlfriends frequently. Very attentive to the opposite sex. Already starting to have the concept of a role model and begin to be consistent with the ideals. The late adolescent period begins at the age of 18 characterized by the achievement of complete physical maturity. The psychosocial changes found between other,

1. identity becomes stronger,
2. able to think of ideas,
3. Able to express feelings in words,
4. More respect for others
5. more consistent with their interests,
6. Proud of the results achieved,
7. A more developed sense of humor, and
8. Emotions are more stable.

In the late adolescent phase, more attention is paid to the period future, including the desired role in the future. Starting to get serious in dealing with the opposite sex, and start to receive environmental traditions and customs.

Factors Affecting Adolescent Cognitive Development

1. Innate

   Innate is determined by the traits and characteristics that are brought from birth. “The limit of our ability”, namely whether or not we can solve a problem, is determined first by our nature. Some people are smart and some are stupid. Despite receiving the same training and students, the differences still exist.

2. Environmental factor

   Although there are characteristics that are basically innate from birth, it turns out that the environment can cause significant changes. Intelligence certainly cannot be separated from the brain. Brain development is strongly influenced by the nutrients consumed. In addition to nutrition, cognitive-emotional stimuli from the environment also play a very important role.

3. Maturity
4. Every organ in the human body experiences growth and development. Each organ (physical and psychological) can be said to have matured if it has reached the ability to carry out its respective functions. Children cannot solve certain problems, because they are still too difficult for him. His bodily organs and soul functions were still immature to do about it. Maturity is closely related to age.

5. Formation
Formation is all circumstances outside of a person that affect the development of intelligence. We can distinguish the formation of intentional (as is done in schools, and the formation of unintentional (the influence of the natural surroundings).

6. Distinctive Interests and Charm
Interest directs action to a goal and is the impetus for that action. In humans there are impulses (motives) that encourage humans to interact with the outside world. Motives use and investigate the outside world (manipulate and exploring motives). And the manipulation and exploration carried out on the outside world, gradually an interest in something arises. What interests a person drives him to do more and do better.

7. Freedom
Freedom means that humans can choose certain methods of solving problems. Humans have the freedom to choose the method, they are also free to choose the problem according to their needs. The existence of this freedom means that interest is not always a condition in the act of Intelligence.

All the factors mentioned above are interrelated with each other. To determine the intelligence or not of a teenager, we cannot only rely on one of the factors mentioned above. Intelligence is the total factor. The whole person participates in determining the act of one's intelligence.

Method
The research method used is literature through books, journals, and online news. Qualitative method as a research procedure that produces descriptive data in the form of written or spoken words from people or observable behavior. Descriptive research is a research method that describes all data or the state of the subject or object of research then analyzed and compared based on the current ongoing reality and then tries to provide solutions to the problem and can provide up-to-date information so that it is beneficial for the development of science and more can be applied to a variety of problems. In general, descriptive research is a research activity that wants to create a picture or try to describe an event or symptom in a systematic, factual way with
accurate preparation. This qualitative method is used because of several considerations, namely the qualitative method is more capable and easy to adjust when dealing with multiple realities, this method presents the nature of the relationship between the researcher and the respondent directly and this method is more sensitive so that can adapt and sharpen the shared influence on the value patterns faced by the researcher.

Results and Discussion

Based on its essence, adolescent cognitive development describes how the adolescent’s mind develops and functions to be able to think. Adolescent cognitive development, in Jean Piaget’s view is the last and highest period in the growth stage of formal operations (period of formal operation). Ideally, a teenager already has his own mindset. Among them can be described, namely: starting to think logically about an abstract idea, starting to be able to make plans, strategies, making decisions, solving problems, and starting to think about the future, emerging scientific reasoning abilities and learning to test hypotheses or problems, learning self-introspection, his thinking insight is getting wider, it can include religion, justice, morality, identity or identity. Teenagers no longer accept information as it is, but will also adapt the information with their own thoughts.

Meanwhile, based on aspects of cognitive development, adolescent boys and girls have differences in aspects of brain structure, differences in biological conditions, functional differences, and verbal abilities. Adolescent boys tend to use the left brain in their thinking processes so that men tend to use logic in solving problems. In contrast to women who tend to use the right and left brain in their thinking processes, women often associate problems with feelings and women can also do multitasking jobs better than men.

References