

Puberty education in primary school: Situation and solution

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Puberty education remains considered a difficult material to deliver at the primary school level in Indonesia. This paper describes teachers' perceptions regarding puberty education practices during the COVID-19 pandemic which makes the learning process more complicated in particular at primary school. The study aimed to describe the situation and solution regarding puberty education in primary school. This study uses a method of expressing opinions obtained from primary school teachers. Data was taken through online focus group discussions from May to December 2020. The research was conducted at 2 public elementary schools and 2 private elementary schools in Jakarta, Bekasi, and South Tangerang, Indonesia. Participants consisted of 43 primary school teachers and the school principal. Some of the problems revealed that teachers reported difficulty in teaching topics such as primary signs of puberty, application of social ethics in Islam, and students' puberty situations. Informants responded to each other about the way to deliver puberty education materials. Teachers should master the knowledge and pedagogic skill regarding puberty. The contribution of the research for the practice as well as the conceptual theory is considering teaching puberty at primary schools by modeling (observational or vicarious learning). Teachers should be a good model for the students, in particular for students with special needs, the topic of puberty needs special attention. All of these research findings are important to be considered as topics discussed in the teachers' workgroups with the involvement of parents.

Keywords: puberty education, primary school, teachers

Introduction

Puberty education is sometimes interpreted differently between students and teachers (Utomo et al., 2020). Most of the teachers and parents in many countries considered puberty education as taboo (Ahmed et al., 2021; Nurfadhilah et al., 2019). Puberty is undeniably a stage that shows changes physically, emotionally, and socially. These changes are often not understood and can not be controlled by students and teachers. Physical changes in the growth process can be observed with careful attention, but emotional situations are much more difficult to understand even for learners who are going through them (Burnett et al., 2011).

Indonesia has launched a vision for the Golden Generation 2045. Achieving this vision certainly requires high-quality human resources. The main prerequisite for the high quality of human resources is the achievement of optimal education and health, and the tipping point occurs at puberty (Nurfadhilah, 2019). The problems of the nation in character building in the sphere of education can be seen from several social phenomena, such as student brawls, drug use, risky/unhealthy and deviant sexual behavior, violence, rape, substance abuse, and other immoral behavior. This moral problem does not only occur in society but often forms of violence in schools involving students, teachers, school principals, and other education personnel, such as yelling, pinching, yelling loudly and harshly, calling others stupid .., etc. Social Cognitive Theory (SCT), was first known as Social Learning Theory, emphasizes reciprocal determinism in the interaction between personal factors, behavioral patterns, and their environments (Kansiime et al., 2020). Some of the key concepts of SCT are observational learning, facilitation, and moral disengagement. Observational learning is learning to perform new behaviors by exposure to interpersonal or media displays of them, particularly through modeling, while facilitation defined as providing tools, resources, or environmental changes that make new behaviors easier to perform, and moral disengagement is ways of thinking about harmful behaviors and the people who are harmed that make infliction of suffering acceptable by disengaging self-regulatory moral standards (Karen Glanz, Barbara K. Rimer, 2017). The theory explains how other people's (teachers') behavior, environment (facilitation), and moral standards for self-regulation shape (students') behavior. SCT recently applied in menstrual health and hygiene (MHH) intervention for secondary school students to evaluate a multicomponent menstrual health intervention that addresses individual, behavioral and environmental barriers to good menstrual health and school attendance (Kansiime et al., 2020).

The situation of puberty education in Indonesia is quite complex (including the cognitive, affective, and conative domain of behavior) with many problems that require comprehensive and immediate solutions. Most adolescents have a low level of knowledge regarding the specific sign of puberty (IDHS, 2017). As many as 65% of adolescents said that they never had any kind of sexual activity (primary abstainers) and 81.6% said they need sex education. Adolescent sexual education in Indonesia is

indeed an urgent need (Nurfadhilah & Ariasih, 2019; Sabilla & Nurfadhilah, 2020). Complex factors influence adolescents' attitudes. Secondary sexual development and emotional changes are markers of puberty and affect attitudes toward reproductive health (RH). This is especially evident in the society and culture of Indonesia. Factors associated with negative attitudes toward RH in both boys and girls were age, RH communication with parents, and pubertal development. A high level of knowledge about RH was associated with less negative attitudes toward RH in both boys and girls (Susanto et al., 2018). However, topics related to puberty and sexual abstinence are very limited in the primary school National Curriculum. Basic competencies regarding puberty education are only taught slightly to students in grades I, III, and VI (Nurfadhilah et al., 2020). A lack of time within the school schedule impacted the delivery of puberty education (Nalugya et al., 2020). Puberty education or comprehensive reproductive and sexual education is very important to enable the students to perform healthy and responsible behavior (sexual abstinence) during adolescence until the right time (marriage) (Nurfadhilah, 2019a; Pinandari et al., 2015; Smith et al., 2017).

The purpose of this study is to obtain an overview of the situation and solution related to puberty education at the primary school level. The activity is expected to share experiences and good practices to be anticipated and become a lesson learned for other schools in Indonesia.

Methods

This research is a qualitative study to explore information about perceptions and practices of puberty education, a case study in a private elementary school in Indonesia. The research was conducted at 2 public elementary schools and 2 private elementary schools in Jakarta, Bekasi, and South Tangerang, Indonesia. The data was collected using a series of interviews and online-focused group discussions. The principal recommends that all teachers participate in the activity.

The number of participants was 43 people consisting of classroom and subject teachers and school principals, except those who are unable to attend when the activity is carried out. The research was held in May until December 2020 through zoom cloud meetings and face-to-face interviews. The topics of the discussion were teachers' perceptions regarding students' situation and experiences of puberty education (materials, methods, media, advantages, and obstacles).

Informants were given a hypercontent book entitled Ready for Puberty before conducting an online discussion. The hypercontent book contains seven (7) core materials, namely preparing for puberty (basic concepts of puberty), knowing yourself, male nature, female nature, potential, self-control, and champion adolescence. After reading the hypercontent book, teachers discuss understanding and experiences in practicing puberty education. The data were analyzed by interpreting the informants' statements and confirming the statements between them. Research data are compared with other research results and relevant theory (Social Cognitive Theory).

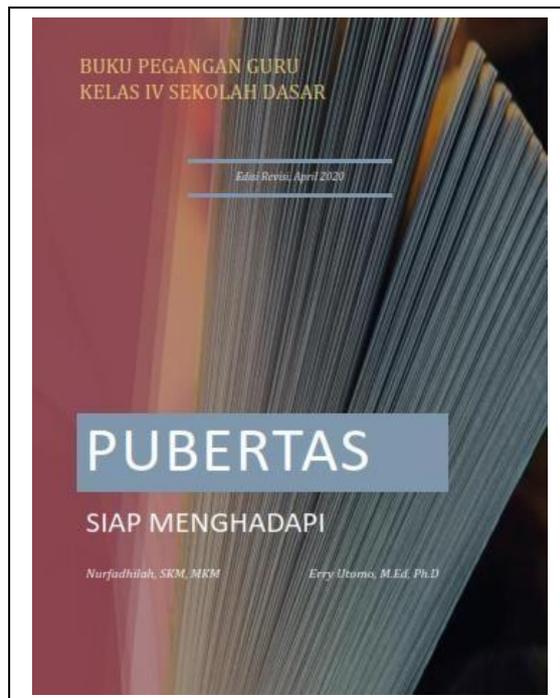


Figure 1. Book Cover

Result and Discussion

The informants are mostly female and aged younger than 30 year old with teaching experience of more than 18 months. All of the informants had experience(s) regarding the puberty situation of the students, except those aged more than 35. Older teachers tend to give the responsibility of teaching puberty material to other teachers, especially those who teach religious subjects.

Table 1. Frequency Distribution of Respondents by Sex, Age, and Teaching Experience (n = 43)

Variable	N	%
Sex		
Male	10	23.3
Female	33	76.7
Age		
<35 year-old	31	72.1
≥35 year-old	12	27.9
Teaching experience		
< 18 months	6	14.0
≥ 18 months	37	86.0

Topics discussed included the delivery of signs of puberty, curriculum and social ethics practices in Islam, and educational strategies for children with special needs. Each of these topics will be discussed specifically in this article (Table 2).

Table 2. Situation and Solution of Puberty Education in Primary school

Variables	Situation	Solution
Time to talk about puberty specific sign	Students at the first grade may ask about physical change, menstruation, or wet dream	Teacher should have adequate information about specific sign of puberty and skill to communicate about it
	Students raised a sensitive question at a “wrong” time (unexpected); e.g. students said that they watched pornography video	Teacher have to control emotion and stay calm
Curriculum addresses specific topics in certain grades	The topic daily activity according to Islamic law taught at 6 th grade, while some of the students menarche at 3 rd grade	Counseling, coaching, and mentoring need to be provided to students anytime they need it, individually or in a group (or class).
	Students used to kiss teachers’ hand to greet and to show their respect	The parents took important role in educating their children about the behavior that is allowed and prohibited after the child experiences primary sign of puberty. Keep the distance (do not touch) become the new normal behavior to avoid infectious diseases and it is in accordance with the new normal behavior
Puberty education for special need students	Students with special need have the same right to get education with the others	Educators are recommended to provide an introduction to changes in the growth and development process (specific signs of puberty) before the process itself begins

Variables	Situation	Solution
		For children with special needs, it is necessary initial introduction or information is needed about changes in the process of growth and development.

Delivering the primary signs of puberty

One of the participants who taught in Grade I experienced an unexpected incident when a student observed and asked why the teacher did not pray together at the moment. This incident is very likely experienced by other teachers who teach in lower grades. Some teachers tend to answer that all normal girl will experience the first period (menarche), and they are not allowed to do the prayer at the time until the period is finished and the girl take an obligatory bath.

Women must take a mandatory bath after menstruation. For men, bathing is also required to clean themselves from wet dreams or after sexual intercourse. Menstruation and wet dreams are known as primary signs of puberty which are recognized by most high-grade students, but not many lower-grade students have yet to understand. From this observational learning, the students know what to do and not to do during and after a girl's period or a boy's wet dream. One of the key concepts in Social Cognitive Theory is observational learning (or vicarious learning), which means learning new behaviors due to interpersonal exposure (other people's behavior)(Karen Glanz, Barbara K. Rimer, 2017), for example, a student observes teacher behavior (modeling or exemplar).

Puberty situation and educational strategies for children with special needs

Inclusive schools do not limit the admission of students, a special needs student has the same right to get an education with the others. For children with special needs, a shadow teacher is provided who will assist in certain academic and non-academic processes during the learning process at school. The special needs student has distinctive characteristics and is associated with puberty, some of them experience it at an earlier time than other students. Educators are recommended to provide an introduction to changes in the growth and development process (specific signs of puberty) before the process itself begins (Couwenhoven, 2001).

Discussion

The application of SCT was used in a recent study. There were high levels of uptake of the individual and behavioral intervention components (puberty education, drama skit, menstrual hygiene management (MHM) kit, and pain management). The proportion of girls reporting anxiety about the next period decreased from 58.6% to 34.4%. Most girls reported improved school toilet facilities, which improved their comfort in managing menstruation. The diary data and qualitative data indicated a potential intervention impact on improving menstrual-related school absenteeism (Kansiime et al., 2020).

Informants, on the other hand, believe that each student already has a certain level of knowledge about sexuality and puberty. Similarly, the previous research revealed that when teachers have to deliver material related to puberty, they experience confusion because they have to fight against private nature (Mora, 2020). Generally, teachers assume that naturally the understanding of puberty will be known and mastered by students in due time. Child Development in the puberty process varies depending on the influence of media and nutritional intake (Hwang & Choi, 2018; Noipayak et al., 2016).

This understanding is not wrong, but in the current situation with advances in information and communication technology, it is risky that students will get misleading information first then they should know. Various studies have shown that comprehensive sexuality and health education interventions, of course, including the theme of puberty, greatly influence healthy and responsible knowledge and behavior (Denny & Young, 2006; Kansiime et al., 2020; Nurfadhilah, 2019b; Pinandari et al., 2015; Smith et al., 2017; Utomo et al., 2020). According to Social Cognitive Theory key concepts, facilitation is needed to make new behaviors easier to perform and the teachers should become the facilitators for learning. In this situation, teachers and school principals need to provide learning tools and resources, or environmental changes. Hypermedia (hypercontent books) are potential learning resources due to the variation of media (written, picture, short-video, etc.) that make the learning process more interesting for students (Herlina, 2019; Hidayat & Rusijono, 2020; Siang et al., 2019). Hypercontent books developed as teachers' guide regarding puberty education are hypercontent books entitled Ready for Puberty(Nurfadhilah, et al, 2021a) and Know to Avoid Virus (describe HIV and the preventive behavior) (Nurfadhilah, et al, 2021b). Those books can be downloaded for free at <https://fkm.umj.ac.id/launch-buku-pubertas-siap-menghadapi/>(Nurfadhilah & Utomo, 2020a) and <https://fkm.umj.ac.id/telah-hadir-buku-hypercontent-kenali-dan-hindari-virus/>(Nurfadhilah & Utomo, 2020b). The books were developed for primary school teachers, hence parents or other educators can use them to facilitate learning.

Teachers have the opportunity to convey basic information about puberty when students in lower grades ask about menstruation and wet dreams. They have to be self-confident, understand the characteristics of students, mastery the material, and communicative in delivering puberty education materials. Certain students were perceived by teachers to be quite satisfied with the information that they would experience menstruation in due time, but for other students, this explanation was not sufficient to satisfy their curiosity. The teacher must explain what happens to women and men at puberty and strengthen students' self-concept (Hurwitz et al., 2018). The understanding of the students' self and body has begun to be emphasized in the lower grades and the teacher should complete the material. Failure of students to understand their self-concept will result in low ability to recognize the environment and mistakes in interpreting the situation experienced so that the potential for risky behavior raised. Research shows that children aged 4 years have started to learn about feelings of liking, at age 8 they have to learn self-image and gender stereotypes, then at age 11 years, they learn sexual orientation (Mora, 2020). The main principles taught include individual differences, assertiveness, and mutual respect. The key concept of moral disengagement in SCT is about to develop in this situation and context.

This concept the concept of health that avoids incest (sexual relations between partners who are related by blood) is in line with the principle of sexual abstinence, namely avoiding various forms of activity that provoke a desire for satisfaction and reproductive recreation functions (Nurfadhilah et al., 2020). Starting from simple behavior, for example, the habit/culture of kissing the teacher's hand when meeting which is very common in primary schools. The teacher feels that students who have reached maturity begin to limit themselves from kissing the hands of their teachers of the opposite sex.

The COVID-19 pandemic situation is a very good opportunity for teachers to take advantage of changing student behavior. Currently, one of the preventions of COVID-19 transmission that is always campaigned is to maintain the distance of at least 1.5 m and avoid direct touch when doing activities in public places or outside the home. The students usually kiss the hands of their teacher(s) and someone older than them (parents, elder brother/sister, etc.) as a symbol of greeting and respect, hence, it should be changed for example by cupping the palms of the hands in front of the chest. So, how to give greetings can be used as a concrete example of respecting people who are not the students' mahram as well as practicing avoidance of touching as the new normal behavior. Parents have a significant role to educate, habituate, and be a good role model for their children at home to enable the internalization of the new behavior at the individual level. The role of parents and teachers is crucial for more complex behavior such as menstrual health and hygiene management. At the individual level, girls mentioned that meeting their specific needs (equipping them with knowledge and physical resources) and improving the context in which they managed their situation with security, privacy and dignity made them ready to participate in the intervention (Kansiime et al., 2020).

One of the cases discussed in the study is when an informant at one time just realized that a student with special needs touched his genitals during the exam time in the classroom (the informants perceived it as a very likely masturbating behavior). The teacher was shocked, confused about what to do, and could not think at the time. Certain students need special education or personal counseling to be able to be taught healthy concepts and behaviors and according to adopted norms. When a child is around 8 or 9 years old (a bit later for boys) they enter a phase "the growing years." This rapid growth phase, typically referred to as puberty, marks the beginning of adolescence. It is a time that includes significant physical and emotional changes and presents challenges for all children, including those with Down syndrome. For many families, this stage is a "whack-over-the-head" reminder that their child with a disability will develop and mature just like everyone else. It is also an opportunity to evaluate and assess where your child is regarding sexual learning. If children with cognitive problems often ignore learning material that is considered irrelevant or does not concern them. Teachers and assistants need to repeat and emphasize information that is considered important for students with disabilities to know. Puberty education should focus on body change, hygiene and care, understanding feelings and sexuality, rules of behavior in public and private places, the privacy of oneself and others, body ownership, and boundaries for oneself and others (Couwenhoven, 2001).

In connection with the Islamic concept, some parties hope that the shadow teachers assigned to the same sex as possible are of the same gender as students so that the education and communication process can be carried out more persuasively. However, there are situations where this is not possible. Puberty education can also be combined with a problem-solving approach. For example, a special brainstorming session for male students about what happens during wet dreams and how to control mental situations and physical activities to release them naturally. The same thing can be done to female students, for example, regarding the management of menstruation and pre-menstrual symptoms.

Table 3. Key Concepts of Social Cognitive Theory for Puberty Education

Concepts	Definition	Illustration
Reciprocal determinism	Environmental factors affect individuals and groups, but individuals and groups can also influence the environment and regulate their own behavior	Teachers share experiences about how to deal with children exposed to pornography. Specialized health workers and parental involvement may be needed to anticipate problems and impacts.
outcome expectation	Beliefs about the likelihood and value of the consequences of behavioral choices	The teacher must be prepared to answer unexpected questions calmly. If you look shocked or panicked, it will cause students to lose openness and trust
<i>self-efficacy</i>	Beliefs about one's abilities lead to behavior that contains the desired results	Periodically increasing the content and pedagogic capacity of teachers on current pubertal issues through teacher working groups (kelompok kerja guru)
<i>collective efficacy</i>	Beliefs about the ability of the group breed behavior that contains the desired outcome	A group of committed teenagers who support each other to quit smoking and fights
Observational learning	Learning to bring up new behaviors by exposure to interpersonal or media, especially through modeling	The teacher gives an example of how to give greetings and respect by keeping a distance to prevent infection
Incentive motivation	Use and misuse of rewards and punishments to modify behavior	Rewards and opportunities for innovative teachers in creative learning about puberty
Facilitation	Provision of tools, resources, or environmental changes that make it easier for new behaviors to emerge	Utilization of diverse and multi-source digital media in puberty learning to make it attractive to students
self regulation	Self-control through self-monitoring, goal setting, feedback, self-reward, self-instruction, and enlistment of social support	Behavior-based nutrition education, healthy shopping vouchers, protein-based cooking practices and child feeding training, two-week home visits with motivational interview methods to reduce the double burden of malnutrition in Indonesia

Conclusion

The themes discussed are insightful and motivating for teachers to play a significant role in primary school puberty education. It is important to establish good cooperation with various parties (teachers, the school principal, parents, health educators/professionals, etc.) to provide comprehensive puberty education and perform students' healthy and responsible behavior. Various good practices in puberty education that are culturally sensitive and based on religious norms can be applied. The delivery of information related to puberty should not be limited, for example, only to the higher grade students, but can also be delivered to students in the lower grade. The teachers should be able to take advantage of moments (context), to adjust content

(a specific topic of puberty education), and to do effective communication styles. Puberty education is not taboo, it is all of students' right to get accurate and adequate information based on the latest scientific evidence.

The teachers need periodic capacity building to increase the level of knowledge and skills regarding puberty education for all students, including those with special needs. The activity could be arranged at the school level or any teachers' workgroup/forum to enable knowledge and experience sharing as well as teaching each others' best practices.

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