



Development Of Adolescent Sexuality Education E-Module With Autism Spectrum Puberty For Parents

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ABSTRACT

Objective: Every teenager experiences changes during adolescence, even those who are autistic. Adolescents on the autism spectrum are more prone to experience sexual harassment because of their weak understanding of sexuality and frequent displays of inappropriate sexual behaviour.

Method: The purpose of this project is to develop a product in the form of an e-module for parents on the autistic spectrum about adolescent sexuality education, as well as to explain the viability of the product to material specialists. Only the development step was modified in the research design, which was based on the ADDIE development design from Branch 2010. Procedures for acquiring data entail the creation of data and the use of validation techniques by experts in the media and material.

Result and Discussion: By examining the expert validation instrument score analysis data, one can determine that this product is practicable and of high quality. It is viable to inform parents of teenagers on the autism spectrum, as evidenced by the expert validation test results, which received a percentage score of 87 per cent. The expert validation test results for the content received a percentage score of 84 per cent, indicating that it was appropriate for learning by adolescents on the autistic spectrum.

Conclusion: This study concludes that the E-module of Adolescent Sexuality Education with the Autistic Spectrum of Puberty for Parents deserves to be developed.

INTRODUCTION

In the course of a person's life, adolescence serves as a transitional stage between childhood and adulthood. The interplay of genetic, environmental, and social biological elements leads to adolescent development. Adolescence begins with the onset of puberty. Both girls and boys go through significant bodily changes during puberty. Teens are ranging in age from 12 to 23. (Santrock, 2012).

Physical maturation during puberty occurs swiftly and is accompanied by alterations in body chemistry (Santrock, 2012). Adolescent girls undergo physical changes such as breast expansion, fine hair developing on the cheeks and armpits, menstruating, and growing past the shoulders. Physical changes for teenage boys include increased penis and testicle size, fine hair in children, growing moustache and beard, Adam's apple becoming larger, voice becoming visible and apparent, and experience. The reproductive system has worked well, and interest in the opposite sex has begun to emerge.

Autism spectrum disorder adolescents have the same reproductive organs as non-disabled adolescents. Adolescents on the autism spectrum experience physical changes, wet dreams, attraction to the opposite sex, and the reproductive system begin to function as they enter puberty. Masturbation and masturbation are sexual behaviours and sexual desires displayed by adolescents on the autism spectrum. According to research, adolescents on the autism spectrum are unable to overcome sexuality issues (Ismiarti, 2019).

In Indonesia, sexuality is always discussed in terms of the individual's biological relationship. The community explains that sexuality education is unnecessary for adolescents because it will guide them in their individual biological relationships. Adolescent sexuality life becomes disorganized and has many consequences. The likelihood of sexual events occurring in autistic children and adolescent girls is relatively high. Because there is no self-resistance to sexual threats, perpetrators have an easier time acting and perceiving adolescents with autism or other disabilities as sexual targets.

Sexual harassment is a type of behaviour that leads to sexual matters and is done unilaterally; as a result, the victim feels shame, anger, hatred, offence, and hurt (UNESCO, 2013). Some forms of sexual harassment that often occur are holding or touching the reproductive organs or other body parts, making or sending sex pictures, inviting sexual relations and making jokes about sex to the intended victim.

Basically, sexual harassment can happen anywhere and anytime.

Adolescents on the autism spectrum are more likely to become victims of sexual harassment in their surroundings (Ballan, 2012). Because autistic adolescents have limited knowledge of sexuality and frequently engage in inappropriate sexual behaviour (Pecora et al., 2019), furthermore, some factors contribute to sexual harassment experienced by autistic adolescents, including parents' unpreparedness to accompany their children as they enter the adolescent phase and parents' limited knowledge of sexuality education. According to Kusumandari (2018), parents of autistic adolescents do not know how to provide sexuality education, and they are unsure that the sexuality education provided will be understood by autistic adolescents. Meanwhile, Syria Arlizar Ritonga (2020) states that autistic adolescents have difficulty conveying the body changes they experience when entering puberty. This is due to the weakness in communication and interaction with other people. So that parents feel unsure about being able to communicate sexuality education to their children.

Adolescents with the autism spectrum are still not a concern in various aspects of the environment, especially in access to sex education and reproductive health and reproductive health services, which are still very minimal and not in accordance with their development needs. From the research (Farakhiyah et al., 2018), the Autism Spectrum Children's Education Module has been produced. This module discusses the basic concepts of children on the autism spectrum and their educational services. This module is intended for students majoring in education in the Special Education Study Program. In this module, because the language used is the language of education which is intended for special education students, it is difficult for parents of autistic children to understand the module that this module is still discussing the problem of autistic children in general, and no one has specifically discussed Adolescent Sexuality Education. With Autism Spectrum Puberty. Attention to access to information and sex education or reproductive health, specifically for autistic spectrum youth, needs to be increased because they also need sex education along with their normal sexual development. Lack of understanding and knowledge about sex will have a lasting impact, one of which is sexual behaviour that is deviant and unhealthy.

Based on the above description, this study addresses the issue of sexuality education for adolescents with autism during puberty and as a form of support for

sexuality education services for adolescents with autism via the development of e-modules. The goal of e-module sexuality education for autistic adolescents is to make it easier for parents to provide sexuality education services. E-module sexuality education for adolescents with autism spectrum includes sexuality education for adolescents with autism spectrum, steps to teach sexuality education for adolescents with autism spectrum, and the impact that occurs when adolescents with autism spectrum lack sexuality education knowledge. The language used in the e-module is simple and easy to grasp. The e-module is accessible via the internet. The e-module can be accessed via the internet. This e-module is also displayed in the form of an exciting animation so that children do not get bored and easily understand the discussion in the module.

E-module sexuality education for adolescents with autism spectrum has differences from other e-modules for sexuality education. If the e-module entitled Sexuality and Reproductive Health Education for Adolescents with Intellectual Disabilities (Hermawan, 2020) contain steps for teaching sexuality and reproductive education for youth with intellectual disabilities, which is addressed to teaching teachers in schools. Meanwhile, the e-module for sexuality education for adolescents with autism spectrum contains sexuality education for adolescents with autism spectrum, steps for teaching sexuality education for adolescents with autism spectrum and the impact that occurs if adolescents with autism spectrum do not have knowledge of sexuality education. E-module sexuality education for adolescents with autism spectrum will be aimed at parents of adolescents with autism spectrum.

This research aims to: 1) Develop a product for developing an e-module for the development of an autistic spectrum adolescent sexuality education e-module for parents. 2) Testing the feasibility of developing an e-module for adolescent sexuality education with autism spectrum for parents based on: eligibility by Material Expert and eligibility by Media Expert.

METHODS

This study employs research and development (R&D) methods. The research and development method, also known as Research and Development (R&D), is a scientific approach to researching, designing, manufacturing, and testing the viability of manufactured products (Sugiyono, 2015).

This study also aims to create a product, specifically an

e-module for parents' adolescent sexuality education with the autism spectrum during puberty. The ADDIE approach with ADD modifications is used in this study (Branch, 2010). The ADDIE modified ADD approach's instructional model stages are as follows: analysis, design, development, implementation, and evaluation.

The participants in this study were parents of autistic adolescents, either mothers or fathers of autistic adolescents. The research will be conducted at SMALB Ir. Juanda No 53 street Jombang.

Research and Development (R&D) with ADDIE approach and modification of ADD Analysis (Analysis), Design (Design), Develop (Development), which is adapted from Branch (2010).

The outcome of developing an e-module for sexuality education for adolescents on the autism spectrum must meet the eligibility criteria. The goal is for parents to use the product to obtain information about sexuality education for autistic adolescents via the website. Material and design experts will participate in the product content validity test. The product validation test instrument was used as an assessment material for developing the e-module for the development of Adolescent Sexuality Education with the Autistic Spectrum of Puberty for Parents.

RESULTS and DISCUSSION

Results of Development of Adolescent Sexuality Education E-Module Products with Autism Spectrum

This study focused on sexuality education for adolescents with autism spectrum disorders during puberty and as a form of support for sexuality education services for adolescents with autism spectrum disorders via the development of e-modules.

The e-module sexuality education for autistic adolescents differs from other e-modules for sexuality education. The e-module Sexuality and Reproductive Health Education for Adolescents with Intellectual Disabilities (Hermawan, 2020) contain steps for teaching sexuality and reproductive health education to adolescents with intellectual disabilities and is aimed at school teachers. Meanwhile, the e-module for sexuality education for adolescents with autism spectrum contains sexuality education for adolescents with autism spectrum, steps for teaching sexuality education for adolescents with autism spectrum and the impact that occurs if adolescents with autism spectrum do not know about sexuality education. E-module sexuality education for adolescents with

autism will be aimed at parents of adolescents with autism.

Only students and teachers are permitted to enter the school grounds. Other people are not permitted to visit the school because many students and teachers have COVID-19 symptoms and must isolate themselves at home. During the COVID-19 pandemic in Indonesia, the development of adolescent sexuality education e-module products for parents of teenagers on the autism spectrum during puberty cannot be tested.

Product development of an Adolescent Sexuality Education E-Module for Parents with Autism Spectrum Puberty, utilizing the ADDIE development stages of analysis, design, development, implementation, and evaluation. This study only employs three stages of development: ADD, analysis, design, and development. The steps of the ADD stage are (1). The analysis includes needs analysis, student analysis, and material analysis, (2) Design includes media and material selection. Designing and compiling products and assessment instruments; and (3) Development, namely product manufacture, feasibility testing and product revision.

The Analysis stage's goal is to identify the source of the problem and define the problem boundaries that will be raised during the research. The E-Module Sexuality Education of Adolescents with Autism Spectrum Research Development examines the sexuality needs of adolescents with autism spectrum and analyzes research subjects. This study's needs analysis focuses on adolescent sexuality in the context of autism spectrum disorder.

Needs analysis is used to determine the types of sexual behaviours displayed by autistic adolescents, making it easier to develop an e-module for sexuality education for autistic adolescents during puberty for parents. Based on the findings of interviews with parents of autistic adolescents at SMALB Jombang and research results sourced from journals and online news, it is known that: (1) Lack of sexuality education causes sexual harassment experienced by adolescents with autism spectrum, (2) Lack of parental knowledge in providing sexuality education, (3) There is no support from parents and the community regarding sexuality education for adolescents with the autistic spectrum, (4) parents are afraid to teach sexuality education to adolescents with autistic spectrum.

Adolescents very much need sexuality education on the autistic spectrum. Parents play a significant role in the success of autistic adolescent sexuality education. Parents are the closest people and spend much time

growing up with teenagers on the autistic spectrum. Based on the results of research by Traver & Tincani (2010) said that support and cooperation from families and communities are needed by autistic adolescents and adults in services and the success of sexuality education.

The participants in the study were parents of autistic teenagers. The research subject analysis aims to determine the needs of parents who have adolescents on the autism spectrum in terms of sexuality education. The analysis findings will be used to develop an e-module for adolescent sexuality education with autistic children. During puberty, the media used in the e-module of sexuality education for adolescents on the autism spectrum. Every day parents of teenagers with autism spectrum disorder are always in touch with technology when looking for the information they require because the website is easily accessible and does not make it difficult for parents to use.

Selecting media and materials, designing and compiling products, and compiling assessment instruments are all design stages. This stage clarifies the planning of the adolescent sexuality education e-module with the autism spectrum of puberty, which has been designed to achieve the desired results. The media chosen were based on an analysis of the needs for learning guidelines for parents of autistic teenagers. Following the media selection, the next step is selecting learning materials. The learning materials were chosen in response to various parental complaints and some unwanted sexual incidents committed by autistic spectrum teenagers. Following the selection of the material, it is followed by the creation of website wireframes and animated scripts, as well as the creation of evaluation tools, namely media assessment instruments. This e-module of sexuality education for adolescents with autism spectrum disorders during puberty is designed with the hope that parents of autistic adolescents will have guidelines for providing sexuality education learning with concrete steps and strategies, as well as animations that can be displayed in learning.

The third stage is the development stage. At this stage, the final product is an e-module for adolescent sexuality education with the autism spectrum during puberty which is packaged on a website that can be accessed using a computer, laptop or mobile phone connected to the internet. This product is also equipped with information about e-modules, namely 1) What is an e-module 2) Is it free? 3) What is the use of e-modules? Furthermore, 4) Who is this e-module for?. This website contains material tailored to the needs of parents of teenagers with the autistic spectrum

who still need more knowledge about autism and its strategies for learning about sexuality education.

Parental knowledge of adolescence is essential for children to successfully navigate puberty, especially for an autistic child who requires special attention from the surrounding environment to grow and develop into a good child for the future; thus, parents are people who play an important role in educating their children. Hurlock believes parents should be aware of their children's developmental tasks at each age. In the case of this autistic child entering adolescence, parents must foster good communication to aid the child's development in understanding the changes that occur in him during puberty through sexual education. Similarly, children require motivation in order to be more enthusiastic about living their lives. Unhappy and difficult to carry out the following tasks (Hasiani, 2013).

Due to parents still believe that discussing sex education with their children is taboo, the fear of teaching or providing knowledge to children leads parents to believe that their children will have the wrong associations or be led in the wrong direction in the future. Despite this, Hurlock (2005) stated that parental knowledge of sex education in autistic children plays an essential role in determining children's future growth and development. Interpersonal communication is required in the family sphere to achieve a harmonious relationship between family members. Especially in the relationship between parents and autistic children who are entering puberty, the quality of good interpersonal communication is conducive in the process of parenting autistic children at this time. Suppose parents ignore the development of their children. In that case, it will have an impact if a child often behaves sexually, making the child have a desire or desire to get married immediately because he can fulfil his sexual desires and children tend to behave harshly towards the surrounding environment (Hasiani, 2013).

This e-module for adolescent sexuality education with autism spectrum during puberty for parents serves as a guideline in providing knowledge about sexuality education, specifically an overview of adolescent sexuality education with the autistic spectrum, steps for teaching adolescent sexuality education with the autistic spectrum, and the impact that occurs when teenagers with autism spectrum are unaware of sexuality education.

This website's content is more than just text that guides parents in providing knowledge about adolescent sexuality education to autistic children. It is, however,

equipped with appropriate animations and animated videos that can be played while studying this material with children so that children learn through lectures and storytelling and gain a better understanding through the available animated videos. Parents can use this website to access various devices with an internet connection and browsers. There is a reading feature (material can be read directly on the web) and a download feature on the material page (material can also be downloaded). Downloaded content can be accessed without having to visit the website. This makes it easier for parents in remote areas or who still do not always have an internet connection to take advantage of this website.

Strategies and tips tailored for children with autism. This sexuality education e-module is designed for parents targeting adolescents with the autistic spectrum by explaining the description of autism at the beginning of the material, followed by material on adolescent sexuality education in the autistic spectrum. Some things distinguish between the guidelines for adolescent sexuality education with the autistic spectrum website and the guidelines for regular adolescent sexuality education, seen from the discussion of the material on the website and materials that have been adapted to the characteristics of autistic children, such as preparation for tantrums in autistic children when hearing the sound of water. The menu on the web is made with a simple but attractive appearance, creating a consistent home button and back button in each menu. Besides that, video viewing on the web is made as similar as possible to showing videos on the YouTube application in a feature so that students and teachers are more familiar with playing animated videos. This is based on the opinion of Friedman & Bryen (2007), who provide web design recommendations for people who are less familiar with technology, namely (1) using images, graphics, icons, and symbols along with text, (2) using clear and simple text. (3) use consistent navigation and design on every page. Web design should support screen readers, (4) use larger font sizes with a minimum of 12pt – 14 pt.

This e-module of sexuality education for adolescents on the autism spectrum allows parents and children to efficiently carry out learning activities anytime and from any location. Anyone with a computer or a mobile phone connected to the internet will find it easier to learn and obtain information (Rusman, Kurniawan & Riyana C., 2012). Students can use web-based learning to repeat all information for an extended time and apply old knowledge to new situations (Olsson & Gustafsson, 2021). Students can use web-based

learning to repeat all information for an extended time and apply old knowledge to new situations (Olsson & Gustafsson, 2021). Furthermore, taking into account the need for continuous and consistent repetition of material, as well as the convenience of teachers and parents in continuing to provide knowledge about sexuality education, a download feature is made available on this website so that all materials and videos can be studied anywhere, at any time, even if they do not have internet access.

Feasibility of Developing Adolescent Sexuality Education E-modules with Autism Spectrum Puberty for Parents

The validator evaluated the development of an adolescent sexuality education e-module for parents with autistic spectrum disorders during puberty. Media and material experts carry out the feasibility test.

Eligibility According to Material Expert

Material experts assess the feasibility of the adolescent sexuality education e-module with the autism spectrum of puberty for parents based on assessing the aspects of content feasibility, reading feasibility, presentation feasibility, and graphic feasibility. The Special Education expert is the material expert who conducts the due diligence assessment.

The feasibility test results from material experts have a percentage value of 87 per cent; if it meets the eligibility criteria, it is in the feasible category. According to material experts, the adolescent sexuality education e-module with autistic spectrum during puberty for parents is appropriate for use.

Eligibility According to Media Experts

Media experts tested the feasibility by assessing the functional aspects and benefits of media, visual media, audio media, typography, language and web programming in the adolescent sexuality education e-module with autism spectrum puberty for parents. The media expert who conducts the due diligence assessment is the Information Technology expert.

The results of the feasibility test conducted by media experts get a percentage value of 84%; if it is included in the eligibility criteria, it is included in the feasible category. This means that the adolescent sexuality education e-module with the autism spectrum at puberty for parents is suitable for use in learning, according to media experts.

CONCLUSSIONS

The resulting product is an e-module for parents' adolescent sexuality education with autism during puberty, which can be accessed through the following address: <http://www.edukasiseksautis.com/>. This media contains an e-module for adolescent sexuality education with autism spectrum during puberty for parents, which consists of 3 materials, namely (1) sexuality education for adolescents with autism spectrum, 2) Steps to teach adolescent sexuality education with autism spectrum, 3) Impacts that occur if adolescents with autism spectrum do not know about sexuality education)

The e-module product for adolescent sexuality education with autism spectrum during puberty for parents is suitable for use according to the assessment of material experts (87%) and media experts (84%).

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