

Implementation of Pictorial Test Instruments to Improve Deaf Students' Sexual Behavior Knowledge through Direct Learning

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Abstract: Adolescents with disability are vulnerable to sexual violence, due to their limitations. This study aims to improve knowledge and understanding of sexual behavior of deaf students by using test instrument in the form of images in direct learning, so it can overcome deviant sexual behavior. The research method used was an experiment with a one group posttest experimental design, the research sample was 22 deaf students of SMPLB and SMALB in the West Java and Bali. The test instrument in the form of choices was equipped with images consisting of four aspects, namely the anatomy and function of reproductive organs, sexual harassment, violence, and self-protection. The instrument used was picture test equipped with simple sentences on each item. Data were processed using nonparametric statistical sign tests. The results of the study were 4 aspects and a combination of all aspects related to reproductive health and sexuality. The results of the 4 aspects showed that only some deaf students knew the anatomy and function of reproductive organs. They have an understanding of sexual harassment behavior, sexual violence, and self-protection from acts of violence or sexual behavior deviations. Overall, the aspects show that deaf students have understanding of reproductive health and sexuality. The mastery of this material is due to the suitability of the multiple-choice test instrument with pictures with the characteristics of deaf students who are visual. Everything is learned through their vision in direct learning. Picture-based test instruments can be applied to other subjects or learning models in special schools.

Keywords: picture-based test instruments; deaf students; sexual behavior.

INTRODUCTION

The Sustainable Development Goals (SDGs), particularly Goal 5 on gender equality and Goal 16 on peace, justice, and strong institutions, emphasize the importance of protecting vulnerable groups, including adolescents with disabilities, from violence and exploitation. However, the vulnerability of adolescents with disabilities to sexual violence remains a serious global issue, with prevalence rates reaching approximately 80% worldwide. People with disabilities are often targeted as victims due to their disabilities. A study conducted by the United Nations Population Fund (2018) highlighted that children with disabilities have limited access to information about puberty, sexuality, and healthy relationships, increasing their risk of sexual violence and deprivation of sexual and reproductive health rights. Children with mobility, vision, and intellectual disabilities face additional barriers in protecting themselves from sexual violence (Kumah, Kyere, & Agyemang, 2017). Additionally, they often struggle to obtain justice in legal systems, as their testimonies are frequently deemed invalid due to their disabilities (Iskandar, 2021).

Research in the UK by the Washington Coalition of Sexual Assault Programs involving 1400 respondents, showed that 54 percent of children with special needs including deaf children experienced sexual abuse (Khushaboo & Dua, 2022). This shows that deaf children experience more sexual abuse than children with normal hearing (Paramesthi & Rahardjo, 2021). The main problem in the educational world today apart from instilling knowledge, affection, and skills is the problem of sexual violence against adolescents. According to data from the Indonesian Child Protection Commission (KPAI) in 2018-2019, elementary school children were recorded as the most victims of sexual violence cases at 64.7%. Cases of sexual violence can happen to anyone including children with special needs (Rachel, Santoso, & Nurliana, 2018). The approach in protecting children with special needs

from sexual violence requires targeted and sustainable efforts. One of the proposed solutions is through the provision of Reproductive and Sexual Health Education (PKRS) to children with special needs of various types. PKRS is not only aimed at students, but also involves training for teachers and educators and education for parents.

Rutgers, a non-governmental organization that focuses on sexual and reproductive health and rights, highlights the importance of providing equal access to reproductive and sexual health education and services for adolescents of various identities, including adolescents with disabilities in Indonesia. Through collaboration with formal educational institutions, especially in Special Schools (SLB) and support from other parts such as the government and non-governmental organizations, this effort is expected to provide better protection for children with special needs.

Children with special needs often get wrong assumption that they are asexual creatures, even though children with special needs have the same sexual urges as other children. They still need proper sexual education. (Taylor & Abernath, 2016). Children with special needs are children who experience obstacles and development so that they require specific services and there are several types, one of which is deaf children, namely children who have disorders in language development due to hearing loss (Shalock, Luckasson, & Tassé, 2021). The characteristics of deaf children in receiving all available information through sight, so there are limitations in receiving information, so special handling is needed. (Susetyo, Maryanti, & Siswaningsih, 2021; Pitaloka, Fakhiratunnisa, & Ningrum, 2022)

Children with special needs, including those who are deaf or hard of hearing, require tailored educational approaches to address their unique learning needs. Deaf children primarily rely on visual input to receive information, which can create barriers in accessing knowledge, including sexual education. Due to limitations in receiving auditory information, they often miss out on critical discussions about puberty, relationships, and personal safety, making them more vulnerable to misconceptions and risks. Understanding the individual strengths and challenges of each child, including their communication preferences and cognitive abilities, is crucial in developing an effective educational approach (Kirk, Gallagher & Coleman, 2022). By recognizing both interindividual and intraindividual differences among children with hearing impairments, educators can implement personalized teaching strategies that ensure they receive comprehensive and accessible education, including essential topics like sexual health and personal boundaries.

Hearing level is determined by the degree and type of hearing loss, and also the age at which the loss occurs. Deafness is defined as a hearing loss severe enough, so a child cannot process linguistic information through hearing, even when using a hearing aid. This hearing loss has a negative impact on a child's educational performance. Hard of hearing or "difficulty hearing" is defined as a hearing impairment that may be permanent or fluctuating and has a negative impact on a child's educational performance. (Khushaboo & Dua, 2022; Kirk, Gallagher, & Coleman, 2022). The level of hearing can have a negative impact on a child's education. Special education adaptations are needed to support these children.

Special Schools are intended for students with special needs. SLB is included in the form of formal education organized by the government and the private sector. The form of education implementation is same as the schools in general. They have the same curriculum for all of Indonesia. The curriculum used follows the developments and provisions of the government, such as the KTSP curriculum, the 2013 curriculum. Learning in schools provides skills for students, namely 4C which include: (1) Communication, (2) Collaboration, (3) Critical Thinking and Problem Solving, and (4) Creative and Innovative. Based on Bloom's Taxonomy revised by Krathwoll and Anderson, the abilities that students

need to achieve are not only LOTS (Lower Order Thinking Skills) namely C1 (knowing) and C2 (understanding), MOTS (Middle Order Thinking Skills) namely C3 (applying) and C4 (analyzing), but there must also be an increase to HOTS (Higher Order Thinking Skills), namely C5 (evaluating), and C6 (creating). Achieving this level of thinking is not easy, because children with special needs have limitations according to their disorders (Magfira Hasan, Bambang, & Ani, 2018). Deaf students who experience limitations in their hearing levels, resulting in limitations in communicating verbally. These limitations affect all abilities, including a very limited way of thinking in everything they learned in class.

Special School (SLB) teachers have responsibility to develop a learning process by choosing a model that can be implemented in the classroom in such a way that it arouses and motivates students (Trianto, 2009). Teachers need to create an evaluation system that can improve and develop students' way of thinking from just remembering facts to critical thinking skills. Improving critical thinking for children with special needs can be evaluated with appropriate measuring tools. Evaluation in learning is needed to determine the success of the learning and to assess whether a program is responsive enough to meet the needs according to the planned objectives (Susetyo, 2015; Suryabrata, Sumadi, 2005).

A systematic and efficient tools in the form of test instruments used to measure cognitive abilities both knowledge and skills are needed in implementing the evaluation of the prevention of sexual harassment in deaf children. It is necessary to create a test instrument as a tool to reveal abilities. There are two stages to develop a test instrument. It is necessary to ensure whether the measuring instrument is available and has been used. If there is no measuring instrument, then a measuring instrument must be created and developed by referring to the variables, dimensions, and indicators of the variable (Susetyo, 2015; Suryabrata, Sumadi, 2005).

The vulnerability of deaf children to sexual violence is an urgency for how education can solve this problem. Teachers have an important and strategic role in carrying out prevention through children's learning in schools, not only required to provide learning in the classroom, but also must understand the potential to the problems experienced by students. In this case, teachers need to find solutions to respond to problems and needs in responding to cases of sexual violence against deaf children

There are many forms of test instruments that can be used to measure the cognitive abilities of children with special needs, one of which is a multiple-choice test. There are several types of multiple-choice test instruments ranging from those that are in the form of choosing to those that are complex. Some use sentences and some use images, graphs, and tables. The form of the multiple-choice test instrument used is an image to reveal the student's abilities. The test format that uses images as questions is very suitable for the condition of deaf children who have limitations in communicating verbally and in writing.

Reproductive Health is a state of complete physical, mental, and social well-being in all matters relating to the reproductive system, functions, and processes. It is not just a state of being free from disease and disability. Everyone should be able to live with a satisfying and safe sexual life for themselves, and be able to suppress or fulfill their desires without hindrance (Rahayu, Noor, Yulidasari, Rahman, & Andini, 2017). Adolescents need to know about reproductive health in order to have the correct information about the reproductive process and various factors around it. Through correct information, adolescents are expected to have responsible attitudes and behaviors towards the reproductive process.

Adolescence is also marked by a lot of curiosity about various things, including sex. As a person gets older, their reproductive organs also develop and eventually mature. During the puberty, hormones begin to function. In addition it caused physical or bodily changes, they also affect adolescent sex drive. Adolescents start to clearly feel an increase in sexual

drive in themselves, for example the emergence of interest in other people and the desire to obtain sexual satisfaction. The maturity of reproductive organs, psychological development of adolescents and the rapid flow of information media, both electronic and non-electronic, greatly influence the sexual behavior of adolescent individuals.

Research related to health and reproduction has been conducted and published in some journals namely *Reproductive Health and Sexuality Education for Adolescents of Junior High Schools Intellectual Barriers to Preventing Sexual Violence in Jombang Regency*, (Faiza & Aliza, 2023), *The Importance of Reproductive Health and Sexuality Education for Adolescents* (Miswanto, 2014) and *The Importance of Reproductive Health and Sexuality Education for Adolescents of Female Students of Watu Ringkel Darussalam Islamic Boarding School - Karangpucung* (Nurlaeli, 2020). Then there are *Comprehensive Reproductive and Sexual Health Education Forms Quality Adolescents* (Safitri, 2021) and *Influence of Reproductive Health Education on the Level of Knowledge About Adolescent Sexual Behavior at SMA Negeri 4 Palopo*, (Passe, Syam, & Khotimah, 2021).

Almost all of the studies are related to reproductive health, while the research conducted has differences in the problems studied, namely in the form of image-based test instruments to improve knowledge of reproductive health and sexuality in children with special needs. Thus, there is a difference with previous studies because there has been no research on test instruments that are the focus of previous studies. Therefore, this study intends to compile an instrument to improve the knowledge of deaf students about sexual behavior so that there is prevention of sexual harassment in deaf children. The model of knowledge test instruments for deaf students is based on images, through a direct learning model. (Wiwi, Nahadi, & Deden, 2016). This study formulates the problem of whether the use of image-based test instruments with direct learning can improve the sexual knowledge of deaf students.

METHOD

This research was conducted with the aim of obtaining data on image-based test instruments to measure knowledge of sexual behavior among deaf students with a direct learning model. The research method used is an experimental research method with a one group posttest design, (Sugiyono. 2019; Susetyo, 2022). The study was conducted with direct learning by teachers in the classroom with sexuality material for three meetings and at the end a test was carried out to measure the abilities of deaf students. In accordance with the one group posttest experimental research design model, the pretest was not carried out and the comparison used the minimum completeness criteria (KKM) which had the same value as the median.

Population

The population in this study were SMPLB and SMALB students in West Java and Bali. The sample in this study were SMPLB and SMALB students who were involved in reproductive health and sexuality learning activities at Special Schools (SLB) for the deaf throughout West Java. The entire population of 70 deaf students, had an equal opportunity to be involved and contribute to the research sample (Susetyo, B., 2022). The number of samples used in the study was 22 from 4 SLB B (Sumedang = 4, Cicendo = 6, Bali = 9, and Cirebon = 3) deaf students, with a sampling technique using a lottery.

Instrument

Research Instrument used a test instrument in the form of images accompanied by simple sentences on each items to measure the level of knowledge in the field of sexual behavior. The test instrument is in the form of multiple choices classified into types of

images, graphs and tables. The test instrument consists of four aspects, namely sexual education, (15 questions), harassment (22 questions), violence (15 questions), protection (15 questions). The test instrument was tested for good test requirements, namely accuracy (validity) and stability (reliability). Validity is carried out with content validity with expert assessment techniques (Susetyo, B. 2022), and calculations using the percentage of assessor conformity. All instruments are declared valid above 80% conformity. Reliability is carried out with internal consistency reliability using the K-R 20 calculation and the test instrument is declared reliable ($r = 0.83$).

Data analysis

Data processing in this research uses non-parameter statistics with the Susetyo sign test. B-a. (2010). The mark used is the median of the maximum and minimum scores. The + (positive) sign is given to scores that are above the median, and the - (negative) sign is given to scores that are below the median. The 0 mark is given to scores that are the same as the median. The formula used to test the hypothesis is $P(x,p) = P(X \leq x, \text{ if } p = \frac{1}{2})$. Criteria for rejecting H_0 on one left side, if the proportion or probability marked plus is smaller than $\frac{1}{2}$, that is, if x of the binomial random variable is small. The calculated P value $P(x,p) = P(X \leq x, \text{ if } p = \frac{1}{2})$, is smaller or equal to the significance level α , then H_0 is rejected ($P \leq \alpha$), which means H_1 is accepted.

FINDING AND DISCUSSION

Finding(s)

The results of the study are discussed in accordance with the problem of increasing knowledge about sexual behavior that can be used to prevent deviant behavior and sexual violence among deaf students in sexual health and reproduction lessons in Special Schools (SLB). Through mastery of knowledge about sexual health and reproduction, it can have an impact on reducing deviant behavior and violence among deaf students. There are 4 aspects to increase knowledge and understanding and 1 combined aspect of the 4 aspects that need to be seen to increase knowledge and understanding. The results of the study on 4 aspects, namely the anatomy and function of reproductive organs, sexual violence, and sexual harassment, and self-protection, are discussed one by one as follows:

Sexuality Education, Anatomy, and Function of Reproductive Organs

The test results data on knowledge of anatomy and function of reproductive organs using a multiple-choice pictorial test instrument equipped with simple sentences on each item on direct learning as follows:

Table 1. Results of the Anatomy and Function of Reproductive Organs Test

No	SLB B	Name	Score	Median	Sign
1	Sumedang	Ridwn	8	7,5	+
2		Candr	5	7,5	-
3		Algi	10	7,5	+
4		Stnur	8	7,5	+
5	Bandung	Ghasn	7	7,5	-
6		Bella	6	7,5	-
7		Dias	10	7,5	+
8		Hisym	12	7,5	+
9		Feidy	10	7,5	+
10	Cirebon	Tala	11	7,5	+
11		Hanaa	8	7,5	+
12		Salsia	13	7,5	+
13		Adies	2	7,5	-

No	SLB B	Name	Score	Median	Sign
14	Bali	Kadek	1	7,5	-
15		Kaman	7	7,5	-
16		Gedew	6	7,5	-
17		NiputL	2	7,5	-
18		Madea	10	7,5	+
19		Kadekl	7	7,5	-
20		Nikad	3	7,5	-
21		Surya	7	7,5	-
22		Koman	8	7,5	+

Table 1 is the test result data on sexuality education containing material on the anatomy and function of male and female reproductive organs, with the number of questions = 15. The minimum completeness criteria (KKM) limit uses the median of the ideal score, so the median = 7.5, the number of samples (n) = 22, the error rate with alpha (α) = 0.05, so the score of deaf students who are above the median or marked + (x) = 11 students. The data in table 1, illustrates that there are 11 deaf students who get a score above 7.5, and there are 11 deaf students who do not reach the KKM score. Thus, it can be interpreted descriptively that some deaf students master the anatomy and function of male and female reproductive organs, some have not. Furthermore, testing is carried out with a sign test to see the level of significance of the findings in general by formulating the following hypothesis;

Ho: Deaf students do not know about sexuality education about the anatomy and function of male and female reproductive organs.

H1: Deaf students know about sexuality education about the anatomy and function of male and female reproductive organs.

The formula used; $P = P(X \geq x, \text{ if } p = \frac{1}{2}) = 1 - P(X \leq x, \text{ if } p = \frac{1}{2})$. For n = 22 and x = 11, then $P = P(X \geq 11, \frac{1}{2}) = 1 - P(X \leq 11, \frac{1}{2})$ the binomial table value is obtained = $1 - 0.7483 = 0.2517$. P value = $0 > 0.05$, then Ho is accepted. Based on the results of the hypothesis testing, it can be concluded that deaf students do not know about the anatomy and function of male and female reproductive organs.

Sexual Harassment

The test result data on understanding sexual harassment behavior using a multiple-choice pictorial test instrument supplemented with simple sentences on each item on direct learning are as follows:

Table 2. Results of Sexual Harassment Behavior Test

No	SLB B	Name	Score	Median	Sign
1	Sumedang	Ridwn	20	11	+
2		Candr	21	11	+
3		Algi	20	11	+
4		Stnur	21	11	+
5	Bandung	Ghasn	21	11	+
6		Bella	22	11	+
7		Dias	21	11	+
8		Hisym	21	11	+
9		Feidy	20	11	+
10	Cirebon	Tala	20	11	+
11		Hanaa	14	11	+
12		Salsia	14	11	+

No	SLB B	Name	Score	Median	Sign
13		Adies	12	11	+
14	Bali	Kadek	13	11	+
15		Kaman	15	11	+
16		Gedew	11	11	0
17		NiputL	12	11	+
18		Madea	14	11	+
19		Kadekl	13	11	+
20		Nikad	15	11	+
21		Surya	10	11	-
22		Koman	12	11	+

Table 2 is the test result data on sexual harassment behavior with the number of questions = 22. The minimum completeness criteria (KKM) limit uses the median of the ideal score, so the median = 11, the number of samples (n) = 21, there is 1 deaf student who gets a score equal to the median, the student is not counted in the sample, the error rate with alpha (α) = 0.05, so the score of deaf students who are above the median or marked + (x) = 20.

The data in table 2, illustrates that there are 20 deaf students who get a score above 11, there is 1 deaf student with a score equal to the KKM and there is 1 deaf student who does not reach the KKM score (passing limit). Thus, it can be interpreted that in terms of description, deaf students have knowledge about behavior that is classified as sexual harassment. Furthermore, testing is carried out with a sign test to see the level of significance of the findings in general by formulating the following hypothesis:

Ho: deaf students do not know about sexual harassment behavior

H1: deaf students know about sexual harassment behavior

The formula used is $P = P(X \geq x, \text{ if } p = \frac{1}{2}) = 1 - P(X \leq x, \text{ if } p = \frac{1}{2})$. For $n = 21$ and $x = 20$, then $P = P(X \geq 20, \frac{1}{2}) = 1 - P(X \leq 20, \frac{1}{2})$ the binomial table value is obtained = $1 - 1 = 0$. P value = $0 < 0.05$ then Ho is rejected. Based on the results of the hypothesis testing, it was concluded that deaf students have an understanding of behavior that is classified as sexual harassment.

Violent Behavior

The test result data on sexual violence behavior using a multiple-choice pictorial test instrument supplemented with simple sentences on each item on direct learning are as follows:

Table 3. Sexual Violence Test Results

No	SLB B	Name	Score	Median	Sign
1	Sumedang	Ridwn	14	7,5	+
2		Candr	8	7,5	+
3		Algi	14	7,5	+
4		Stnur	14	7,5	+
5	Bandung	Ghasn	3	7,5	-
6		Bella	12	7,5	+
7		Dias	11	7,5	+
8		Hisym	11	7,5	+
9		Feidy	14	7,5	+
10		Tala	14	7,5	+
11	Cirebon	Hanaa	12	7,5	+

No	SLB B	Name	Score	Median	Sign
12		Salsia	12	7,5	+
13		Adies	8	7,5	+
14	Bali	Kadek	4	7,5	-
15		Kaman	11	7,5	+
16		Gedew	6	7,5	-
17		NiputL	7	7,5	-
18		Madea	13	7,5	+
19		Kadekl	12	7,5	+
20		Nikad	1	7,5	-
21		Surya	1	7,5	-
22		Koman	15	7,5	+

Table 3 is the test result data on sexual violence behavior, number of questions = 15. The minimum completeness criteria (KKM) limit uses the median of the ideal score, so the median = 7.5, number of samples (n) = 22, error rate with alpha (α) = 0.05, then the score of deaf students who are above the median or marked + (x) = 16.

The data in table 3, illustrates 16 deaf students obtained a score above 7.5 and there were 6 deaf students who obtained a score below the KKM. Thus, it can be interpreted that in terms of description, deaf students have an understanding of behavior that is classified as sexual violence. Furthermore, testing is carried out with a sign test to see the level of significance of the findings in general by formulating the following hypothesis:

Ho: Deaf students do not have an understanding of sexual violence behavior

H1: Deaf students have an understanding of sexual violence behavior

The formula used is $P = P(X \geq x, \text{ if } p = \frac{1}{2}) = 1 - P(X \leq x, \text{ if } p = \frac{1}{2})$. For $n = 22$ and $x = 16$, then $P = P(X \geq 16, \frac{1}{2}) = 1 - P(X \leq 16, \frac{1}{2})$ the binomial table value is obtained = $1 - 0.9987 = 0.0013$. P value = $0 < 0.05$ then Ho is rejected. Based on the results of the hypothesis testing, it was concluded that deaf students have an understanding of behavior that is classified as sexual violence.

Sexual Behavior Protection

The test result data on self-protection against sexual behavior of deaf students using a multiple-choice pictorial test instrument supplemented with simple sentences on each item on direct learning are as follows:

Table 4. Sexual Behavior Protection Test Results

No	SLB B	Name	Score	Median	Sign
1	Sumedang	Ridwn	10	7,5	+
2		Candr	11	7,5	+
3		Algi	15	7,5	+
4		Stnur	15	7,5	+
5	Bandung	Ghasn	8	7,5	+
6		Bella	8	7,5	+
7		Dias	8	7,5	+
8		Hisym	8	7,5	+
9		Feidy	14	7,5	+
10		Tala	13	7,5	+
11	Cirebon	Hanaa	11	7,5	+
12		Salsia	13	7,5	+
13		Adies	5	7,5	-
14	Bali	Kadek	9	7,5	+

No	SLB B	Name	Score	Median	Sign
15		Kaman	9	7,5	+
16		Gedew	10	7,5	+
17		NiputL	11	7,5	+
18		Madea	7	7,5	+
19		Kadekl	7	7,5	+
20		Nikad	9	7,5	+
21		Surya	6	7,5	-
22		Koman	11	7,5	+

Table 4 is the test result data on self-protection against sexual behavior with the number of questions = 15. The minimum completeness criteria (KKM) limit uses the median of the ideal score, so the median = 7.5, the number of samples (n) = 22, the error rate with alpha (α) = 0.05, so the score of deaf students who are above the median or marked + (x) = 20.

The data in table 4, illustrates that there are 20 deaf students who get a score above 7.5, and there are 2 deaf students who do not reach the KKM score. Thus, it can be interpreted descriptively that deaf students have an understanding of self-protection against sexual behavior. Furthermore, testing is carried out to see the level of significance of the findings in general by formulating the following hypothesis:

Ho: deaf students do not have an understanding of self-protection against sexual behavior

H1: deaf students have an understanding of self-protection against sexual behavior

The formula used is $P = P(X \geq x, \text{ if } p = \frac{1}{2}) = 1 - P(X \leq x, \text{ if } p = \frac{1}{2})$. For $n = 22$ and $x = 20$, then $P = P(X \geq 22, \frac{1}{2}) = 1 - P(X \leq 20, \frac{1}{2})$ the price in the binomial table is obtained = $1 - 1 = 0$. P value = 0.00 < 0.05, then Ho is rejected. Based on the results of the hypothesis testing, it was concluded that deaf students have an understanding of self-protection against sexual behavior.

Prevention of Violence or Sexual Deviance Among Deaf Students

The test result data on the prevention of violence or sexual deviation among deaf students using a multiple-choice pictorial test instrument supplemented with writing explanation on direct learning are as follows:

Table 5 Prevention of Sexual Violence Among Deaf Children

No	SLB B	Name	Anatom y	Abuse	Violence	Protection	Total	Media n	Sign
1	Sumedang	Ridwn	8	20	14	10	52	33,5	+
2		Candr	5	21	8	11	45	33,5	+
3		Algi	10	20	14	15	59	33,5	+
4		Stnur	8	21	14	15	58	33,5	+
5	Bandung	Ghasn	7	21	3	8	39	33,5	+
6		Bella	6	22	12	8	48	33,5	+
7		Dias	10	21	11	8	50	33,5	+
8		Hisym	12	21	11	8	52	33,5	+
9		Feidy	10	20	14	14	58	33,5	+
10		Tala	11	20	14	13	58	33,5	+
11	Cirebon	Hanaa	8	14	12	11	45	33,5	+
12		Salsia	13	14	12	13	52	33,5	+
13		Adies	2	12	8	5	27	33,5	+
14	Bali	Kadek	1	13	4	9	27	33,5	+
15		Kaman	7	15	11	9	42	33,5	+

No	SLB B	Name	Anatomy	Abuse	Violence	Protection	Total	Median	Sign
16		Gedew	6	11	6	10	33	33,5	+
17		NiputL	2	12	7	11	32	33,5	+
18		Madea	10	14	13	7	44	33,5	+
19		Kadekl	7	13	12	7	39	33,5	+
20		Nikad	3	15	1	9	28	33,5	+
21		Surya	7	10	1	6	24	33,5	+
22		Koman	8	12	15	11	46	33,5	+

Table 5 is the test result data on preventing violence or sexual deviation among deaf students, with the number of questions = 67. The minimum completeness criteria (KKM) limit uses the median of the ideal score, so the median = 33.5, the number of samples (n) = 22, the error rate with alpha (α) = 0.05, so the score of deaf students who are above the median or marked + (x) = 22.

The data in table 5, illustrates that all deaf students (22 students) obtained a score above 33.5. Thus, it can be interpreted descriptively that deaf students have an understanding of preventing violence or sexual deviation among deaf students. Furthermore, testing is carried out with a sign test to see the level of significance of the findings in general by formulating the following hypothesis:

Ho: Students do not know how to prevent sexual violence against deaf children

H1: Students know how to prevent sexual violence against deaf children

The formula used; $P = P(X \geq x, \text{ if } p = \frac{1}{2}) = 1 - P(X \leq x, \text{ if } p = \frac{1}{2})$. $n = 22$ and $x = 22$, then $P = P(X \geq 22, \frac{1}{2}) = 1 - P(X \leq 22, \frac{1}{2})$ the price in the binomial table is obtained = $1 - 1 = 0$. The value of $P = 0$, then Ho is rejected. Based on the results of the hypothesis testing, it was concluded that deaf students have the ability to prevent violence or sexual deviations among deaf students.

Discussion(s)

The use of multiple-choice test instruments in the form of images equipped with simple sentences to measure the cognitive abilities of deaf students in the subject of Reproductive Health and Sexuality (KRS) with a direct learning model in SLB B at the SMPLB and SMALB levels. The aspects measured by the multiple-choice test instrument in the form of images are; knowledge of the anatomy and function of reproductive organs, behavior that includes sexual harassment, sexual violence behavior, and self-protection against sexual behavior (Australian Institute of Family Studies, 2016; Nurlaeli, 2020; Marlina et al., 2022; Winarsih, Wahyuni, & Nanik, 2020; Ariantini, Kurniati, & Duarsa, 2017] By mastering these four aspects, violence or sexual deviation can be prevented among deaf students (Ambarwati, 2021; Solehati et al., 2022).

The results obtained showed that deaf students significantly did not know the anatomy and function of male and female reproductive organs well, understood behavior that was classified as sexual harassment, understood behavior that was classified as sexual violence, and understood self-protection against sexual behavior, and could prevent violence or sexual deviation among deaf students (Bowman, Scotti, & Morris, 2010; Putri & Ritonga, 2024; Handayani, Yamtinah, & Kristiyanto, 2021).

The use of images as a medium in learning and test instruments greatly benefits deaf students by helping them understand material and test content more effectively compared to written test instruments. Studies have shown that deaf students struggle with vocabulary,

figurative language, compound words, and abstract concepts, which affects their ability to comprehend text-heavy assessments (Kurniasari, Nurkhalim, 2023; Hanum, Huda, & Kurniawan, 2018). Additionally, their reliance on visual input presents challenges in understanding concepts that are not easily represented visually (Rusyani, Karyana, Susetyo, & Putri, 2021).

Research also supports the effectiveness of image-based multiple-choice test instruments for deaf students. Studies indicate that the use of graphical multiple-choice tests aligns with the visual learning characteristics of deaf students and helps mitigate their language limitations (Susetyo, 2022; Susetyo, 2023). This approach reduces the cognitive load associated with processing complex written instructions and enables better comprehension of test content. However, some studies argue that multiple-choice tests, even with images, still present challenges because they allow guessing rather than truly measuring comprehension (Susetyo, 2015; Susetyo, 2011). This raises concerns about the validity of such assessments in accurately reflecting students' knowledge.

In the broader context of learning, visual media such as images play a crucial role in enhancing the educational experience of deaf students. The effectiveness of graphic media has been widely acknowledged in improving engagement and comprehension (Kurniasari, Nurkhalim, 2023; Hanum, Huda, & Kurniawan, 2018). Moreover, lessons on Reproductive and Sexual Health (KRS) are particularly necessary for deaf students due to their vulnerability to sexual violence and their limited access to information (Solehati et al., 2022; Ariantini, Kurniati, & Duarsa, 2017). While some studies support the integration of visual media in such lessons, others suggest that additional adaptations, such as sign language interpretation or interactive digital media, may be required to ensure a deeper understanding (Putri & Ritonga, 2024; Handayani, Yamtinah, & Kristiyanto, 2021).

Based on the findings from previous studies, this research confirms that the use of images in learning and assessment significantly supports the educational needs of deaf students, particularly in test instruments and reproductive health education. While some concerns remain regarding guessing in multiple-choice formats, the overall evidence supports the necessity of visual-based learning approaches to bridge communication gaps and enhance understanding among deaf students.

The weakness of this study lies in its sample, namely that no selection on each person who had a disorder other than deafness that could affect the results of the test given. The next weakness is that in the anatomical image media, both for learning instruments and test instruments, there are still terms in foreign languages because it is difficult to find their equivalents in Indonesian, which causes deaf students to have difficulty understanding these terms.

Implications in learning test instruments in the form of images can be applied in other subjects, especially subjects that are easier to see in the process compared to writing, such as social studies, science and others. The knowledge and understanding of deaf students regarding reproductive health and sexuality that is already good, needs to be balanced with practical skills and emotional support to be effective, so that preventing violence or sexual deviation among deaf people can be prevented.

The recommendation that can be given is to carry on and expand reproductive health and sexuality education through programs specifically designed for deaf students. Teachers can use the appropriate visual and interactive methods to increase knowledge and understanding in preventing behavior that contains elements of violence or deviant sexual behavior.

CONCLUSION

Based on the overall research results, deaf students have the knowledge and ability to prevent sexual violence. However, some still lack awareness in certain aspects, such as reporting cases of sexual violence to trusted individuals and effectively refusing sexual invitations. On the other hand, they demonstrate understanding of preventive measures, including recognizing body parts that should not be touched by others, knowing the rules for maintaining personal safety, being aware of sexual invitations, and possessing the ability to refuse inappropriate advances.

To further enhance deaf students' knowledge and ability to prevent sexual violence, the following steps are recommended:

1. Schools must incorporate comprehensive education by implementing a structured and accessible sexual violence prevention program that is tailored to the needs of deaf students. These programs must include role games, visual aids, and sign language-based explanations.
2. Parents, teachers, and caregivers must encourage open communication by fostering a safe environment where deaf students feel comfortable discussing concerns about personal safety.
3. Institutions should establish clear, accessible, and confidential reporting systems specifically designed for deaf students, ensuring they have the means to report any incidents.
4. The training session must focus on improving rejection skills, development of firmness and communication strategies to help deaf students with confidence rejecting inappropriate requests.

This study has several limitations that should be considered. First, the sample size may not fully represent the diverse experiences of all deaf students, limiting the generalizability of the findings. Second, communication barriers might have influenced students' responses, as the complexity of certain concepts may require further clarification through sign language interpretation. Third, the study primarily focuses on students' knowledge and does not assess the effectiveness of existing educational programs in preventing sexual violence. Future research should consider larger, more diverse populations and explore long-term interventions to enhance deaf students' ability to prevent and respond to sexual violence.

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