

Conference Paper

Factors Influencing Blind Adolescents' Reproductive Health Behaviors, in Sukabumi

Hana Haryani^{1*}, Faridah Mohd Said³, Nur Syazana²¹Diploma III of Midwifery, Sekolah Tinggi Ilmu Kesehatan Sukabumi Indonesia, Lincoln University College Malaysia²Lincoln University College Malaysia³Faridah Mohd Said, Lincoln University College Malaysia**Abstract.**

Adolescents with disabilities or special needs are very vulnerable to various health problems including reproductive health. In helping to maintain reproductive health, of course, there needs to be other factors that can support the achievement of reproductive health maintenance such as sources of information, knowledge, and attitudes. This study aims is to determine the influence of sources of information, knowledge, and attitudes toward the reproductive health of blind adolescents in the Sukabumi. A source of information is a set of useful information to meet the need for information or news for the wider community. Knowledge is the result of knowing and this happens after a person performs sensing of an object. Attitude is the readiness to react to an object in a certain environment as a passion for an object. Behavior is a person's response or reaction to a stimulus. This type of research is correlational with the *cross-sectional* approach. Total sampling was used for the population and sample of 42 blind adolescents in Sukabumi. Statistical analysis was done using multiple linear regression. The results showed that there was a significant influence of information sources on the reproductive health behavior of blind adolescents (p-value 0.000), there was a relationship of knowledge on the reproductive health behavior of blind adolescents (p-value 0.000), and there was knowledge of attitudes toward reproductive health behaviors of blind adolescents (p-value 0.000). There is a simultaneous influence of sources of information, knowledge and attitudes towards reproductive health behaviors of blind adolescents (p-value 0.000). It can be concluded that sources of information, knowledge, and attitudes have an influence on the reproductive health behavior of adolescents with visual disabilities. This study's findings can be used to further investigate reproductive health in blind adolescents.

Keywords: adolescents, behavior, blind disability, knowledge, reproductive health, sources of information

Corresponding Author: Hana Haryani; email: hanaharyani@dosen.stikesmi.ac.id

Published 4 August 2023

Publishing services provided by Knowledge E

© Hana Haryani et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICHSSSE Conference Committee.

OPEN ACCESS

1. Introduction

Reproductive health is an important concept that must be exposed in all elements of society, including people with disabilities. However, in fact, reproductive health information is very minimally accessible to people with disabilities (1). In Indonesia, the estimated number of people with disabilities according to Stanford Binne is 2.75 percent of the 280 million population, or around 7.7 million (2). Seeing the large number of people with disabilities, it is undeniable that people with disabilities are very vulnerable to problems, especially reproductive health problems. UNICEF in 2013, stated that in various countries adolescents with disabilities have a higher risk of experiencing violence than adolescents in general. Adolescents with disabilities were 3.7 times greater in violence, 3.6 times greater for physical violence, 2.9 times greater for sexual violence(3).

Reproductive health is the overall physical, mental, and social well-being health in all matters related to systems and functions, as well as reproductive processes and not just conditions that are free from disease and disability(4). Until now, people with disabilities still have limited access to health services. Most persons with disabilities in Indonesia live in vulnerable conditions caused by restrictions, barriers, difficulties, and the reduction or elimination of rights for persons with disabilities. Stigma, prejudice, and denial of access to health services, education, employment, and participation in society put people with disabilities at risk of living in difficulties in all areas including in the health sector causing the welfare of persons with disabilities to be compromised. One of the difficulties in the health sector and the problems experienced by people with disabilities is related to sexual and reproductive health(5).

Adolescents with disabilities or special needs are particularly vulnerable to various health problems including those related to reproductive health. One of the causes is due to limited mobilization and access to information about reproductive health. Currently, there is still a lack of access to health services which include counseling, coaching, and guidance, as well as weak mastery of communication techniques for health workers in socializing services, especially for people with disabilities. Then counseling on reproductive health issues, reproductive counseling around myths and facts of reproductive health, so far has not been given to adolescents with disabilities optimally(1,2). This is a weak point for the lives of adolescents with disabilities, especially visual disabilities, where it is often difficult to maintain their reproductive health. Maintaining reproductive

health is very important for all communities, including people with disabilities. In helping to maintain reproductive health, of course, there needs to be other factors that can support the achievement of reproductive health maintenance, one of which is a source of information.

Currently, health information including reproductive health information is available in a variety of information media sources such as television, radio, newspapers, magazines, libraries, the internet, and comics. The content of health information has an important role for society, especially adolescents with disabilities in order to get better knowledge, especially in the field of health(6).

Usually adolescents with disabilities find it difficult to maintain their reproductive health. Not only that, but adolescents with disabilities often isolate themselves from their environment and have limited access to information and education services. Many adolescents with disabilities actually lack information and education related to reproductive health(7). In addition, the lack of accurate information coming from non-health worker information sources makes adolescents with disabilities increasingly ignorant and even unfamiliar with reproductive health.

People with visual impairments need others to obtain information, this is because people with visual disabilities must use non-visual senses such as the sense of touch and the sense of listener(8). People with disabilities can obtain information through the sense of touch by using braille or by utilizing information media through audio that utilizes the sense of hearing such as radio / TV(9). By utilizing other senses such as the senses of touch and hearing, it will be very helpful and reproductive health information can be easily received by adolescents with visual disabilities. In addition to utilizing other sensory touches, the role of health workers as educators is certainly very much needed, because information related to reproductive health is most appropriately provided by health workers. Therefore, this source of information must be conveyed by health workers through methods that are acceptable to persons with disabilities. Reproductive distress information must be received clearly and accurately in blind adolescents in order to understand the importance of reproductive health(10).

At this time, the lack of availability of accurate information about reproductive health can encourage blind adolescents to seek free access to information to non-health workers such as listening to information only through radio electronic media, and only hearing from sayings or messages from parents / religious figures / figures. In the end, if you get wrong or inaccurate information, it will be very risky for adolescents with disabilities

to carry out incorrect reproductive health maintenance, this will increase the risk level of disease and other health problems in adolescents with disabilities. Therefore, it is very important to obtain sources of information related to reproductive health accurately from health workers(11).

In addition, the knowledge factor is also the main capital in adolescents with visual disabilities. Sukmadinata suggests that exposure to information can increase knowledge. According to Girsang, knowledge is needed by a teenager entering puberty, a teenager whose knowledge of puberty is less likely to be confused in dealing with physical changes in himself, including in adolescents with visual disabilities. Therefore, blind adolescents must also gain knowledge about the changes that occur in adolescence both physically and mentally which are the rights of persons with(12). Reproductive health education is a knowledge that needs to be socialized to all adolescents, especially for adolescents with visual disabilities. The goal is that blind adolescents have comprehensive guidance on the concept of self-care so that blind adolescents have the ability to take care of their biological bodies. However, the reality on the ground shows that blind adolescents are the subject of being affected by the taboos of reproductive health education in society(13).

Most blind adolescents respond negatively to reproductive health. Many people with visual disabilities say they do not know that education and reproductive health services are a necessity for them. Reproductive health is a necessity because it is important to fortify adolescents with disabilities from various health problems. Therefore, reproductive health services and education to adolescents with disabilities must still be provided while still paying attention to the abilities of adolescents with visual disabilities(14).

The next factor that can influence reproductive health behaviors is attitudes. Notoatmodjo mentions that attitude is a reaction or response of a person who is still closed to a stimulus or object. A good (positive) attitude towards something will prevent a person from committing negative actions. When entering adolescence, a person tends to want to gain knowledge related to the changes that occur in him both physically and psychically. In this case, knowledge related to reproductive health is very important for adolescents, including adolescents with visual disabilities. Good knowledge related to reproductive health will foster a positive attitude towards reproductive health behaviors. Attitudes can be real and appropriate deeds. The positive attitudes of blind adolescents will give rise to concrete actions or a behavior that is quite good for adolescents with disabilities in maintaining reproductive health(15,16).

Sukabumi City is a small city that is densely populated with various tribes, religions and races and there are also people with special needs, one of which is people with visual disabilities who are not only adults but many are also teenagers. People with visual disabilities often experience various health problems, especially reproductive health problems. This can happen due to the exposure of information from non-health workers' sources, lack of knowledge related to reproductive health, and negative attitudes towards reproductive health behaviors. Sources of information, knowledge and attitudes play a very important role in reproductive health behaviors in adolescents with disabilities. So far, many studies have analyzed the relationship or influence related to knowledge and attitudes towards the reproductive health behaviors of adolescents with disabilities and only looked at whether there is a relationship between the two variables. However, no studies have been found that analyze the influence of information sources on reproductive health behaviors in adolescents with disabilities. In this study, analyzed the influence of variable sources of information, knowledge and attitudes on the reproductive health behavior of adolescents with visual disabilities. And this study will present the influence of these three variables simultaneously on reproductive health behavior in blind adolescents that has never been done before, then finally can see the dominant variables that affect reproductive health behavior in adolescents with visual disabilities.

Based on this description, researchers are interested in conducting a study with the title of factors that affect the reproductive health behavior of blind adolescents in the Sukabumi City and Regency Area.

2. Methods and Equipment

2.1. Study design

This type of research is correlational with the *Cross Sectional* approach.

2.2. Sample

The population in this study was all blind adolescents in extraordinary schools in Sukabumi Regency and Sukabumi City with a sample of 42 people using *the total sampling technique*.

2.3. Instrument

The instrument uses non-standard questionnaires for knowledge and attitude variables adopted and modified from Handhika's research, (2017).

2.4. Data collection procedure

Before collecting data, written informed consent was obtained. Approval is obtained from the school as an official representative of parents. We explained the right to withdraw and anonymity while collecting data, and they were free to refuse to answer any questions. We also gave each student a one-page information sheet outlining the purpose of the study and providing contact information for the principal investigator.

2.5. Data analysis

Data analysis techniques in univariate analysis use *mean* values in each variable, in bivariate analysis using simple linear regression analysis, in multivariate analysis multiple regression analysis is used.

3. Results

The results of this study can be seen in table 1, showing that the average age of respondents is 15 years old, most of the respondents are male, namely 24 people (42.9%). The average value of the information source variable is 1.07 (0.26), the average value of the knowledge variable is 7.90 (1.46), the average value of the attitude variable is 18.79 (2.31), the average value of the reproductive health behavior variable is 22.83 (3.76), can be seen in table 2. The results of this study show that information sources affect reproductive health behavior ($b = 10.590$, $p = 0.000$, $R^2 = 0.539$), knowledge affects reproductive health behavior ($b = 2.343$, $p = 0.000$, $R^2 = 0.830$), attitudes can affect reproductive health behaviors ($b = 1.500$, $p = 0.000$, $R^2 = 0.850$), listed in table 3. Simultaneous influences can be seen in table 4, showing that influential sources of information, knowledge, and attitudes can influence reproductive health behavior ($p=0.000$, $R^2=0.951$ with regression equation $Y=-4.044+4.239X_1+0.536X_2+0.964X_3$).

TABLE 1: Characteristics Of Respondents.

Characteristics	f	%
Age The average respondent is 15 years old		
Gender		
Woman	18	42,9
Man	24	57,1

TABLE 2: Univariate Analysis Of Research Variables.

Variabon	Mean	Standard Deviation (SD)	Min	Max
Sources of Information	1,07	0,26	1	2
Knowledge	7,90	1,46	5	12
Attitude	18,79	2,31	15	24
Reproductive Health Behaviors	22,83	3,76	18	34

TABLE 3: Simple Linear Regression.

Variables	P-Value	Unstandardized Coefficients B		R	R ²
		Constant	Variables		
Information Sources	0.000	11.487	10.590	0.734	0.539
Knowledge	0.000	4.309	2.343	0.911	0.830
Attitude	0.000	-5.336	1.500	0.922	0.850

TABLE 4: Multiple Linear Regression.

Variables	P-Value	Unstandardized Coefficients B	R	R ²	P-Value Anova
(Constant)		-4.044	0.975	0.951	0.000
Information Sources	0.000	4.239			
Knowledge	0.014	0.536			
Attitude	0.000	0.964			

4. Discussion

Based on the results of the study, it shows that there is a direct influence of information sources on reproductive health behavior in adolescents with disabilities. The results of this study are in line with Simanjutak's research, (2019) which states that there is an influence of information sources on the reproductive health behavior of adolescents with visual disabilities(18). Supported by the results of research by Solehati et al., (2019) that information sources affect the reproductive health behavior of adolescents with visual disabilities(19).

A source of information is a set of information that has been grouped based on each category in the form of libraries, magazines, newspapers and websites that are useful for meeting the need for information or news for the wider community(20). The role of the media is important in shaping the behavior of a disabled adolescent in understanding reproductive health problems. Information that is not quite right, will greatly affect knowledge to be less precise(21).

Sources of adolescent reproductive health information are obtained from various sources, namely non-health workers and health workers where these health workers are considered to be the most accurate source of information about reproductive health, adolescents' knowledge about their reproductive health can increase properly so that it does not lead to irresponsible sexual behavior(22). Sources of information will have a good effect in adding knowledge, so that it will affect the behavior of the individual himself and can distinguish good and bad(23).

Based on the results of research by Bawental et al., (2019) shows that there is a direct influence of knowledge on reproductive health behavior in adolescents with visual disabilities(24). The results of this study are in line with the research of Gustiawan & Mutmainnah, (2021) stated that there is an influence of knowledge on reproductive health behavior in adolescents with disabilities(25). This result is supported by research by Atik & Susilowati, (2021) that knowledge affects the reproductive health behavior of adolescents with disabilities(26).

Understanding reproductive health behaviors is one of the important things to know because adolescence is a transition period for children to adulthood. Lack of understanding of reproductive health in adolescence can be detrimental(27). The formation of a new behavior especially in adolescents begins in the cognitive domain, in the sense that the subject knows first of all the stimulus in the form of a material / object outside it that later contains a new interpretation of the subject and finally is followed by the behavior. The better the level of knowledge adolescents will usually have good reproductive health behaviors, and vice versa(28). In adolescence, information about reproductive health and sexual problems should begin to be provided to avoid adolescents from seeking their own information from friends or other obscure or even erroneous sources(29). This is in line with the results of research(12) that information sources can increase knowledge in adolescents(12).

Knowledge is closely related to reproductive health behaviors in adolescents with disabilities. Information about meeting the needs of adolescents through programs that

need to be provided to adolescents with disabilities including education and counseling, adolescent protection against sexual violence, providing information on reproductive health, as well as prevention of STDs (premenstrual syndrome), HIV / AIDS prevention, prevention programs and treatment of adolescent sexual abuse, so that adolescents can understand the need to maintain reproductive health and understand about the impacts of behaviors that irresponsible. Thus it can be understood that insufficient knowledge about reproductive health will affect premarital sex behavior in adolescents by looking at the many risks that can be caused by bad behavior, so the increase in knowledge, especially regarding adolescent reproductive health, needs to be improved and needs to involve all aspects(26).

Based on the results of the study, it shows that there is a direct influence of attitudes towards reproductive health behavior in adolescents with disabilities. The results of this study are in line with the research of Bawental et al., (2019) that there is an influence of attitudes with reproductive health behaviors of adolescents with disabilities(24). The research is also supported by Nugraheni & Romdiyah, (2021) states that attitudes significantly affect reproductive health behaviors.

This attitude does not yet fall into an action or activity. Attitude is a readiness to react to objects in a certain environment as a passion for an object(31).

Attitudes influence a person's behavior through a process of making decisions in a thorough and well-founded manner. Attitudes gained from experience will have a direct influence on behavior. This influence will be realized if possible in certain situations and conditions. The formation of a behavior begins with an understanding of the information received well and then is shown with an attitude that is in accordance with the information obtained. Then the attitude will give a response in the form of behavior or action to the information. Acceptance of new behaviors through a process based on a positive attitude has a long-standing influence on these(15).

Based on the findings that the reason adolescents decide to look for the right source of information is because there is a feeling of worry about getting wrong information so that it will cause problems or harm themselves, besides that blind adolescents are aware of their limitations so that it is possible for others to provide wrong information and take advantage of . A supportive or positive attitude is not only obtained from knowledge but is also influenced by emotional factors, personal experiences, mass media, educational institutions and the influence of others that are considered important(16). Attitudes are part of the emergence of reproductive health

behaviors of adolescent rehabilitation. Adolescents need a positive attitude to live a healthy period of adolescence, able to maintain their health so that they are able to enter a family life with healthy reproduction(31).

The results of the study also showed that sources of information, knowledge and attitudes simultaneously influenced the reproductive health behavior of adolescents with visual disabilities. Students who have good reproductive health behaviors because they get sources of information from accurate sources, namely health workers who provide clear knowledge related to reproductive health so that they have a positive attitude in perceiving reproductive health.

5. Conclusions

The study discovered that the sources of information, knowledge, and attitudes of blind adolescents influenced their reproductive health behaviors. This study will have an impact on improving public health, particularly reproductive health in adolescents. Adolescents with disabilities must have the right to reproductive health, and conditions related to this influence must be improved. This study's findings can be used to further investigate reproductive health in visually impaired adolescents. This research is expected to be used as a reference for relevant agencies or the government in providing protection related to psychological and physical well-being to adolescents with visual disabilities.

6. Funding

Sekolah Tinggi Ilmu Kesehatan Sukabumi provided funding for this project.

Acknowledgment

The author would like to thank Sekolah Tinggi Ilmu Kesehatan Sukabumi for the encouragement and enthusiasm given during the research.

Conflict of Interest

There is no conflict of interest in this study.

References

- [1] Puspito H, Nugraheni SA, Purnaweni H. Faktor penghambat pemenuhan hak kesehatan reproduksi penyandang disabilitas (studi pada remaja SMP di SLB negeri Bantul Yogyakarta). *VISI KES KES J Kesehat Masy*. 2019;18(2):175–189.
- [2] Hermawan B. Teacher module: Reproductive health and sexuality education for adolescents with intellectual disabilities [Internet]. 2020. p. 159. Available from: <https://pmpk.kemdikbud.go.id/bukudigital/products/...%0A>
- [3] Megawati A. Knowledge and attitudes of young women with disabilities about the prevention of violence against young women in the City of Bandung. *INKLUSI J Disabil Stud*. 2021;8(1):15–28.
- [4] Mueck AO. Reproductive health for global women. *Glob Heal J* [Internet]. 2021;5(2):63–65. Available from: <https://doi.org/10.1016/j.glohj.2021.05.001>
- [5] Akto A. Center of reproductive health [Internet]. 2019. Available from: <https://pkr.fk.ugm.ac.id/2019/07/12/konferensi-internasional-tentang-keluarga-berencana-dan-kesehatan-reproduksi-di-indonesia-2019-di-yogyakarta/>
- [6] Setianti Y, Hafiar H, Damayanti T, Nugraha AR. Reproductive health information media for adolescents with mental disabilities in West Java. *J Kaji Komun*. 2019;7(2):170.
- [7] Ulfah K, Widayani W. Blind adolescents' experiences of reproductive and sexual health: A qualitative study. *J Ris Kesehat Poltekkes Depkes Bandung*. 2021;13(2):407–421.
- [8] Fitri R, Fitriani I. Effectiveness of health education using audio-visual media on changes in adolescent knowledge and attitudes about obesity in SMPN 1 Pekanbaru. 2020;1–6.
- [9] Djannah SN, Sulistyawati S, Sukesu TW, Mulasari SA, Tentama F. Audio-visual media to improve sexual-reproduction health knowledge among adolescent. *Int J Eval Res Educ*. 2020;9(1):138–143.
- [10] Rugoho T, Maphosa F. Sexual and reproductive health of adolescents with disabilities. *Sexual and Reproductive Health of Adolescents with Disabilities*. 2021.
- [11] Sicherer M. The elementary school counselor's guide to supporting students with learning disabilities. *The Elementary School Counselor's Guide to Supporting Students with Learning Disabilities*. 2020.
- [12] Pamungkas SD, Debbiyantina D, Kusumastuti A, Winancy W. Faktor-Faktor yang Berhubungan dengan Pengetahuan Kesehatan Reproduksi Remaja Tunanetra di

- Salah Satu Panti Sosial Jakarta Timur. *SEAJOM Southeast Asia J Midwifery*. 2019;5(1):43–48.
- [13] Wahyuningtyas R, Partini. Pendidikan Kesehatan Reproduksi Remaja Putri Netra di Yogyakarta. 2021.
- [14] Aval ZO, Rabieepoor S, Avval JO, Yas A. The effect of education on blind women's empowerment in reproductive health: A quasi-experimental survey. *Maedica (Buchar)*. 2019;14(2):121–125.
- [15] Astuti P. Factors related to reproductive health attitudes and behaviors of overseas students in Makassar City. *Univ Hasanudin*. 2021;1–62.
- [16] Asiah N, Suza DE, Arruum D. Adolescent knowledge and attitudes about nur's reproductive health. *Nur J Ilm Permas J Ilm STIKES Kenda*. 2020;10(2):125–128.
- [17] Handhika P. Hubungan Tingkat Pengetahuan Kesehatan Reproduksi Remaja Dengan Sikap Seksual Pranikah Di SMK Taman Siswa Nanggulan Tahun 2017. Skripsi Politek Kesehat Kementerian Kesehat. 2017;1–102.
- [18] Simanjutak Y. Exposure of information media to adolescent reproductive health behavior in Purwodadi Village, Deli Serdang Regency in 2016. *J Ris Kesehat Nas*. 2019;1(2):170–180.
- [19] Solehati T, Rahmat A, Kosasih CE. Relation of media on adolescents' reproductive health attitude and behaviour. *J Penelit Komun Dan Opini Publik*. 2019;23(1):40–54.
- [20] Tarigan ER. The relationship of information sources with adolescent knowledge about sexually transmitted diseases in private high schools MAS GBKP Berastagi. *Indones Trust Heal J*. 2019;1(2):107–112.
- [21] Harahap LJ. The relationship of information sources with adolescent knowledge about reproductive health in Sarimaon Village. *Kesehat Masyarakat Darmais*. 2022;1(1):1–4.
- [22] Tucunan AA., Maitimo BI, Tulungen IF. The relationship of information sources with knowledge about adolescent reproductive health in North Sulawesi Province. *Poltekita J Ilmu Kesehat*. 2022;15(4):373–379.
- [23] Anjani A. Relationship of information sources of hygiene's personal behavior during menstruation in young women at SMPN 1 Gamping. *Univ Jenderal Achmad Yani Yogyakarta*. 2019;1–65.
- [24] Bawental NR, Korompis GEC, Maramis FRR. Hubungan Antara Pengetahuan Dan Sikap Dengan Perilaku Kesehatan Reproduksi Pada Peserta Didik Di Sma Negeri 3 Manado. *Kesmas*. 2019;8(7):344–351.
- [25] Gustiawan R, Mutmainnah M. The relationship of knowledge with reproductive health behaviors in adolescents. *Ilm Ners Indones*. 2021;2(November 2021):89–98.

- [26] Atik NS, Susilowati E. The relationship between knowledge level and adolescent reproductive health behavior in students of SMK Semarang Regency. *J Ilm Kesehat Ar-Rum Salatiga*. 2021;5(2):45–52.
- [27] Handayani DE, Wardani Y. Pengaruh Penyuluhan Terhadap Pengetahuan Dan Sikap Orang Tua Pada Pendidikan Seksual Remaja Berkebutuhan Khusus Di SLBN Pembina Yogyakarta. *J Kesmas (Kesehatan Masyarakat) Khatulistiwa* [Internet]. 2019 Nov 24 [cited 2021 Jul 1];6(3):115. Available from: <http://openjurnal.unmuhpnk.ac.id/index.php?journal=jkkm&page=index>
- [28] Septiani R. The relationship of knowledge about reproductive health and attitudes toward reproductive health issues and adolescent sexual media access to adolescent sexual behavior. *J Menara Med*. 2019;2(1):13–21.
- [29] Buaton A. Knowledge and exposure informational of adolescents about reproductive health. *Heal dan Coast*. 2019;2:97–107.
- [30] Nugraheni N, Romdiyah. The relationship of knowledge, attitudes and media access to adolescent behavior in caring for genetalia organs. *J Ilm Kesehat Ar-Rum*. 2021;6(1):37–42.
- [31] Handayani F, Bestari AD, Nurhayati. The effects of learning by reproductive health module on knowledge, attitudes and practices regarding adolescent reproductive health in Bandung District. *J Phys Conf Ser*. 2019;1179(1).