KORESPONDENSI JURNAL

Judul artikel	:	Perspectives on Reproductive Health Education among Javanese Parents
Nama jurnal	:	Kesmas
Penulis	:	Bagoes Widjanarko, Ratih Indraswari, Aditya Kusumawati, Novia Handayani

Tampilan proses review di OJS Kesmas :

#5893 Review

Submission

Authors	Bagoes Widjanarko, Ratih Indraswari, Aditya Kusumawati, Novia Handayani
Title	Perspectives on Reproductive Health Education among Javanese Parents
Section	Articles
Editor	Dewi Susanna

Peer Review

Round 1

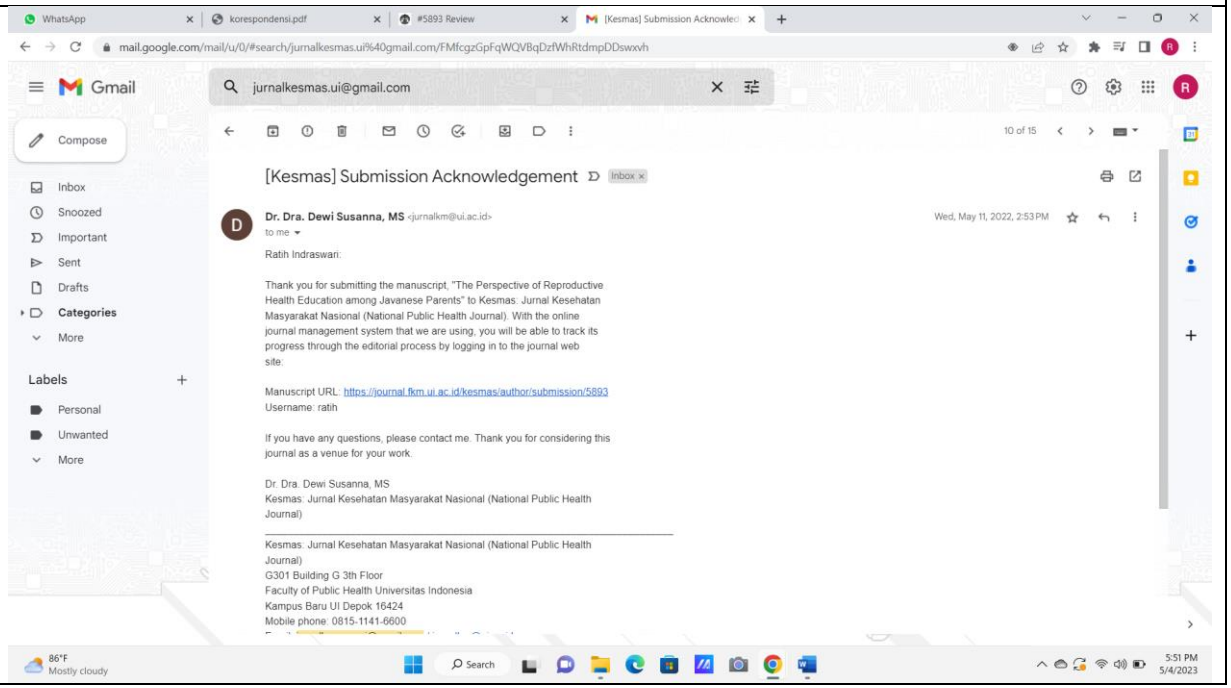
Review Version	5893-19261-1-RV.DOC 2022-05-11
Initiated	2022-07-21
Last modified	2022-08-09
Uploaded file	None

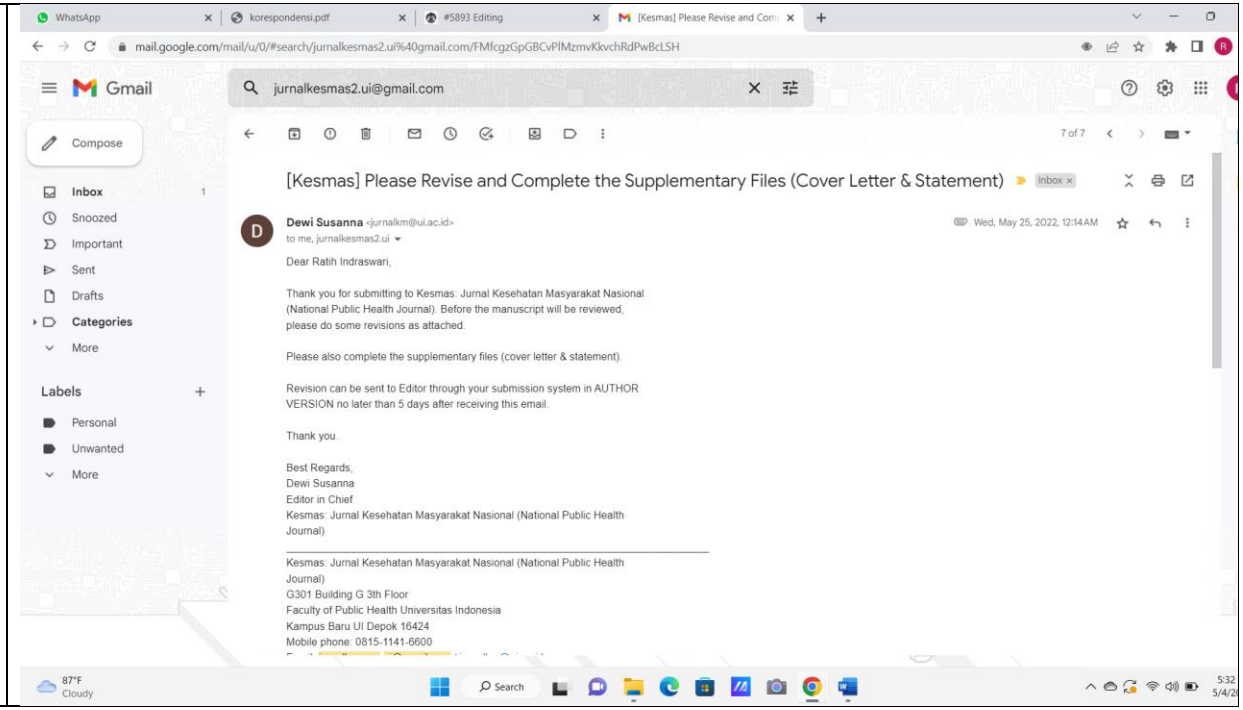
Editor Decision

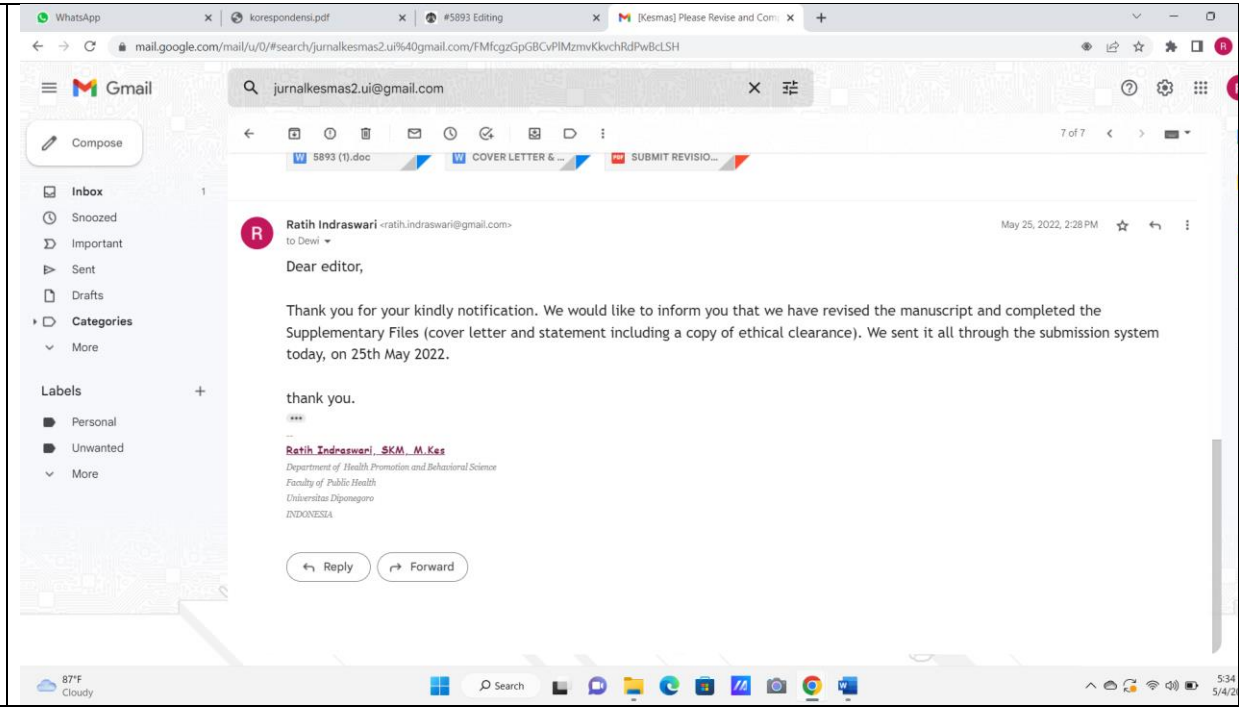
Decision	Accept Submission 2022-08-27
Notify Editor	Editor/Author Email Record 2022-08-31
Editor Version	None
Author Version	5893-19305-1-ED.DOC 2022-05-25 DELETE 5893-19305-2-ED.DOC 2022-06-28 DELETE 5893-19305-3-ED.DOCX 2022-08-11 DELETE 5893-19305-4-ED.DOC 2022-08-16 DELETE 5893-19305-5-ED.DOC 2022-08-21 DELETE 5893-19305-6-ED.DOC 2022-08-23 DELETE
Upload Author Version	Choose File No file chosen Upload

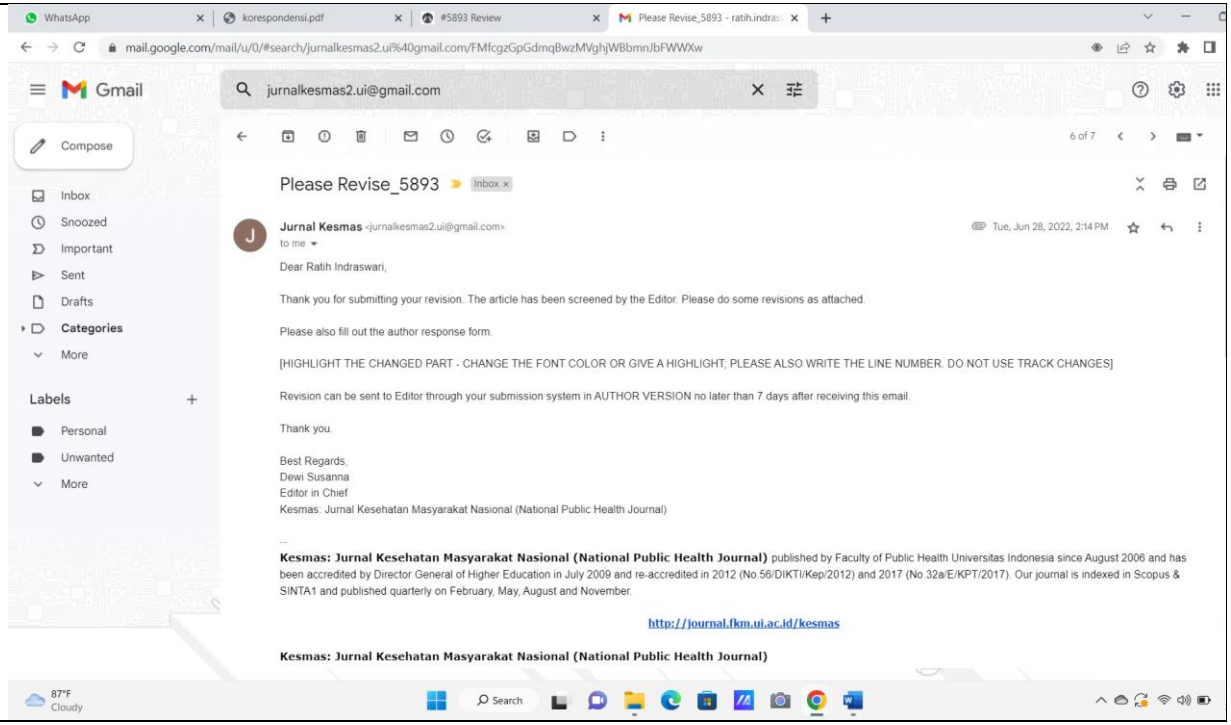
Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) *indexed in*

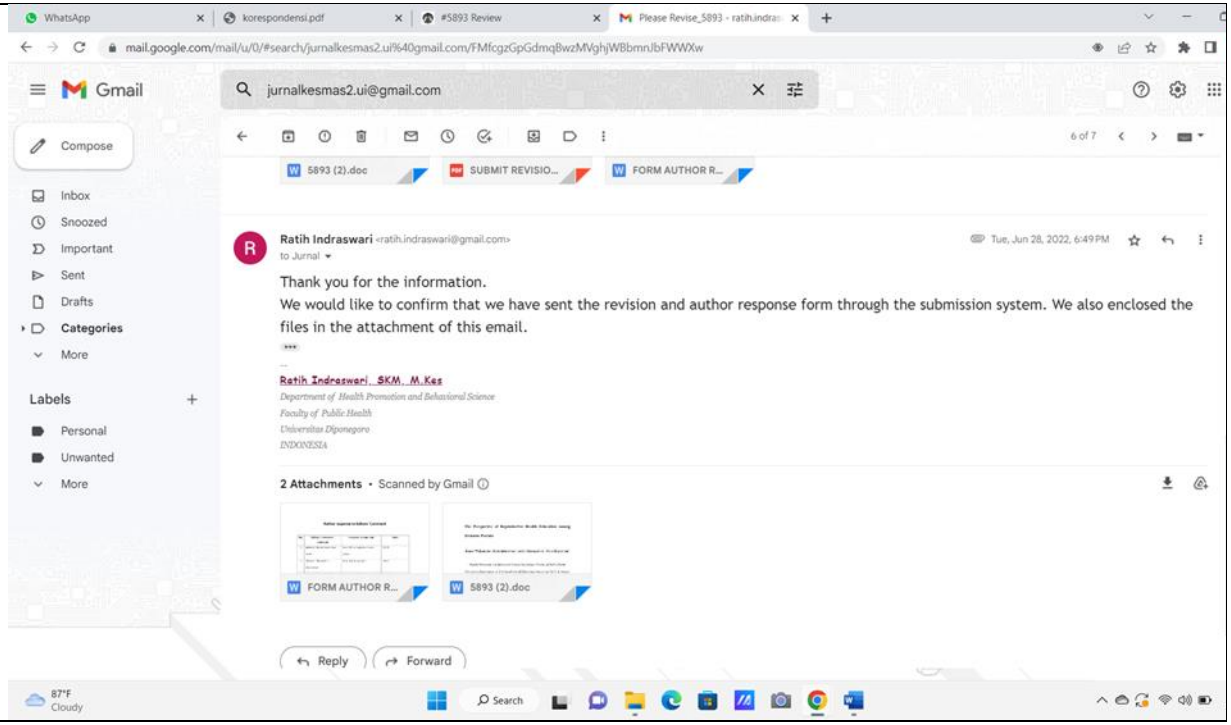
p-ISSN: 1907-7505
e-ISSN: 2460-0601

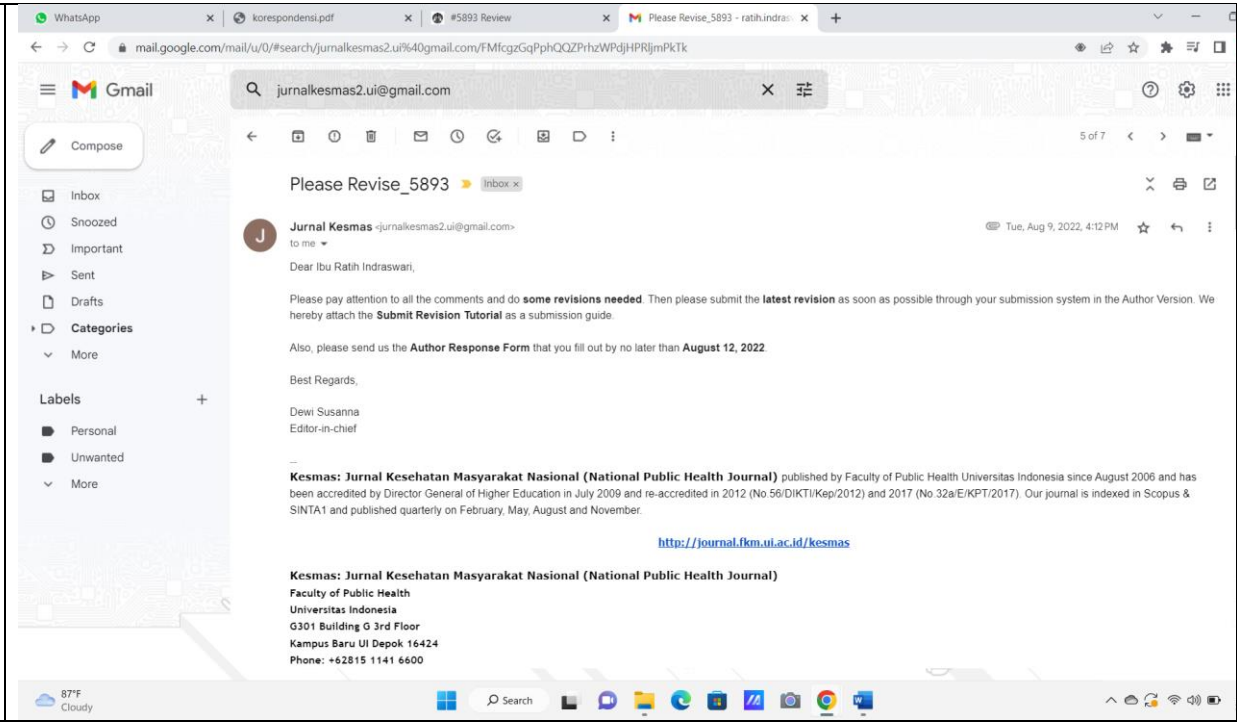
No	Kegiatan	Tanggal	Bukti
1	Submit artikel	11 Mei 2022	

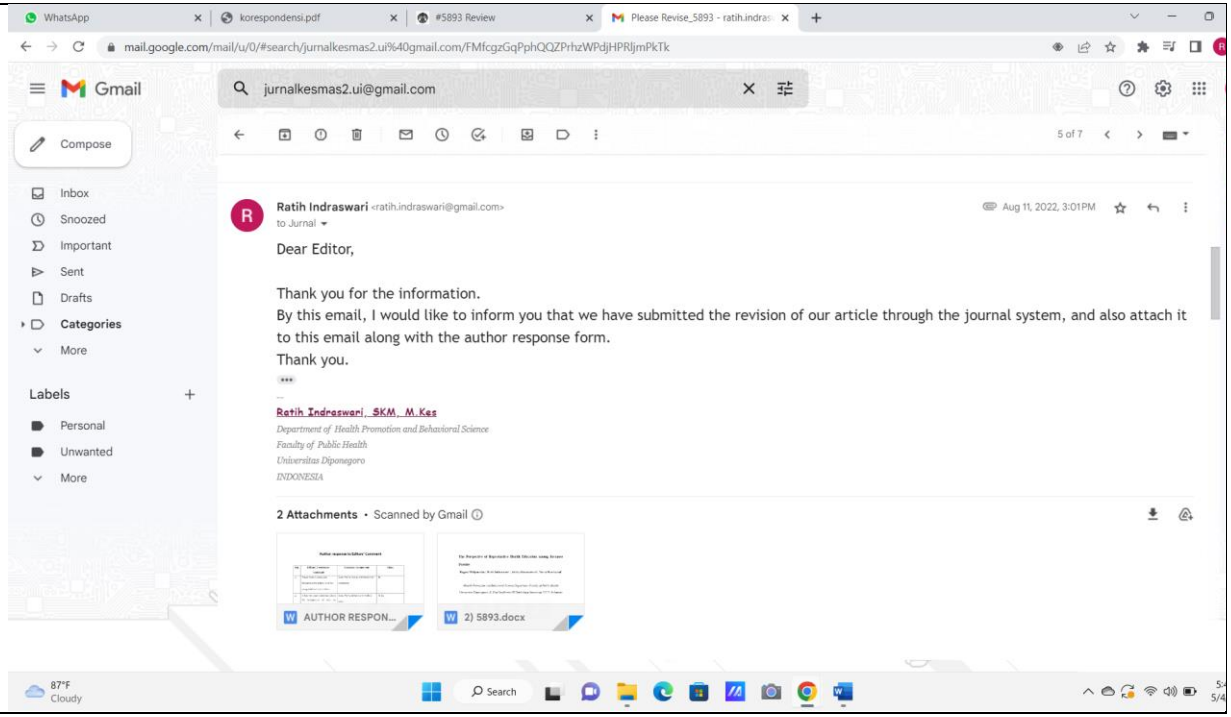
2	Revisi 1: Kelengkapan supplementary files	25 Mei 2022	

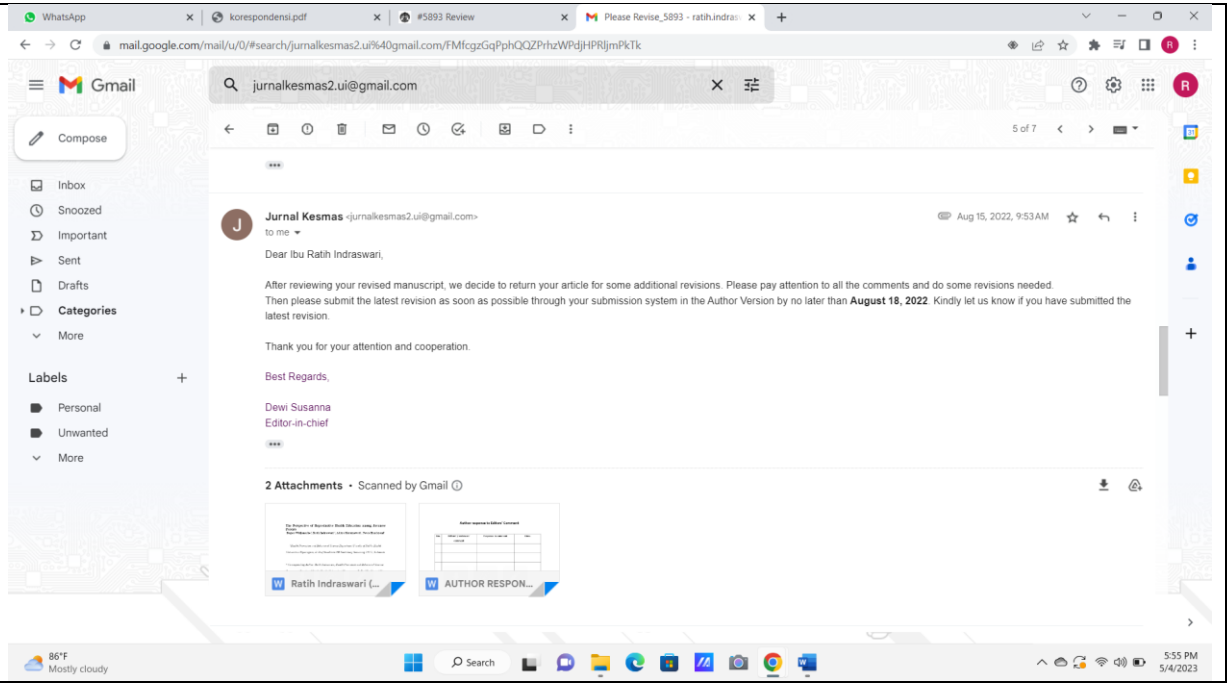
3	Perbaikan revisi 1: Melengkapi supplementary files	25 Mei 2022	

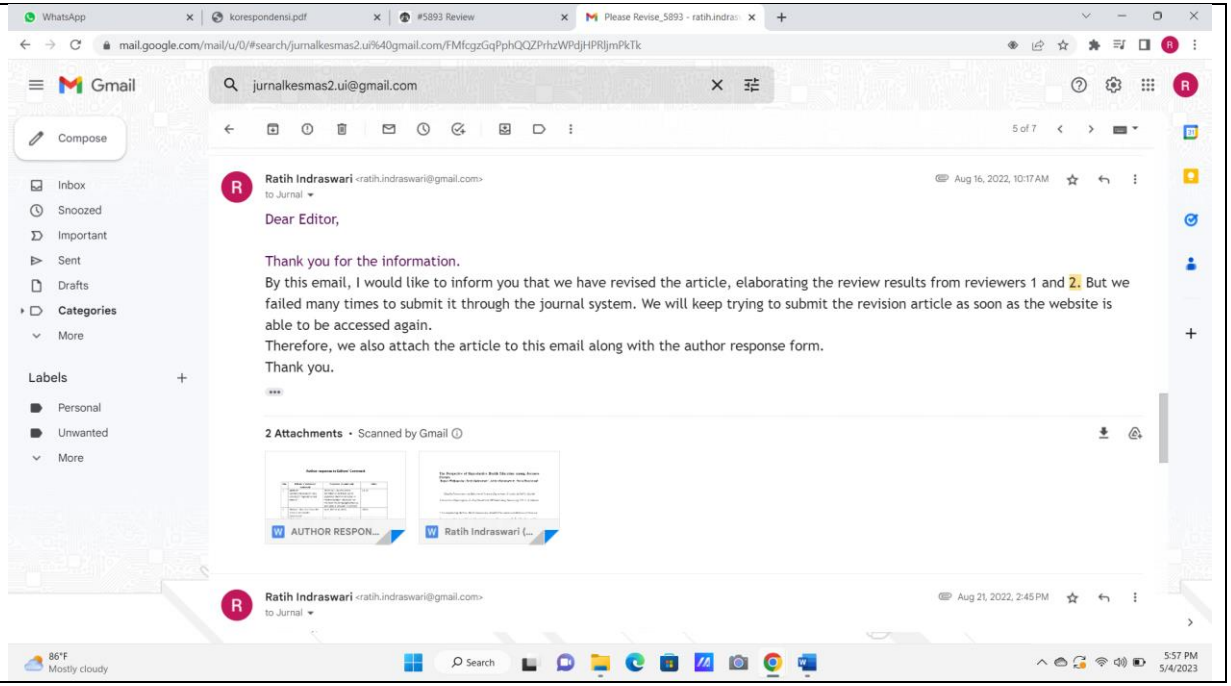
4	Revisi 2: Permintaan untuk menandai bagian yang direvisi	28 Juni 2022	

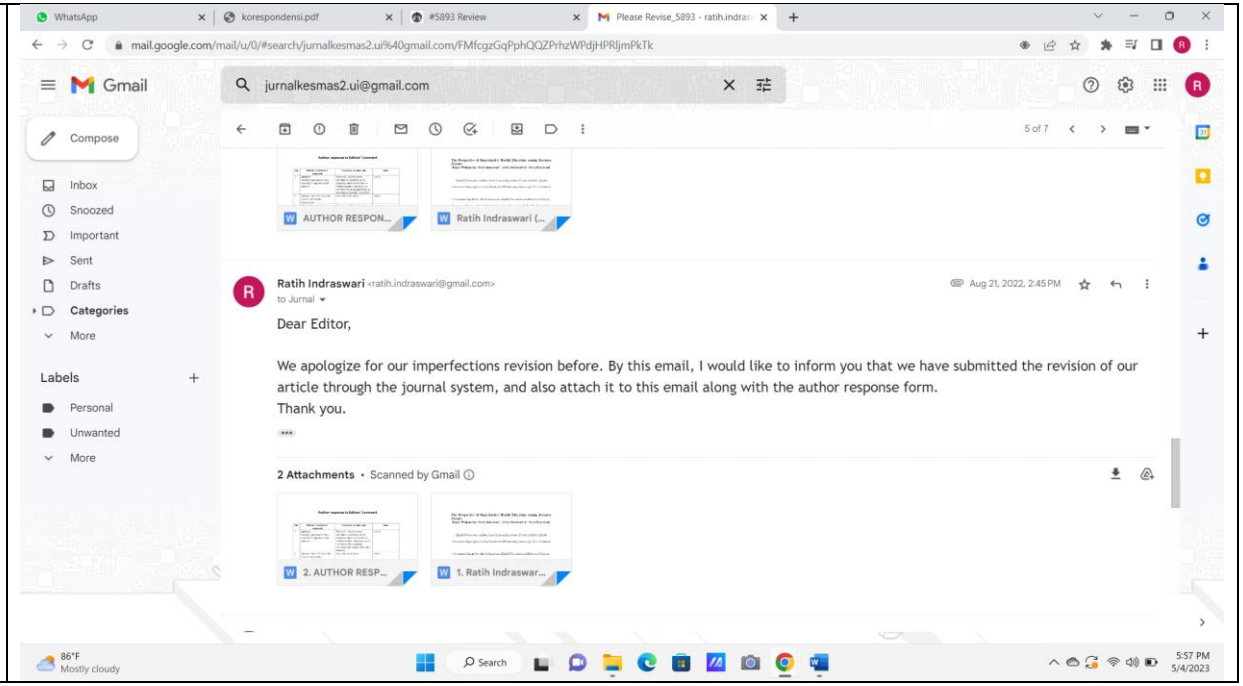
5	Perbaikan revisi 2: Permintaan untuk menandai bagian yang direvisi sesuai masukan reviewer	28 Juni 2022	

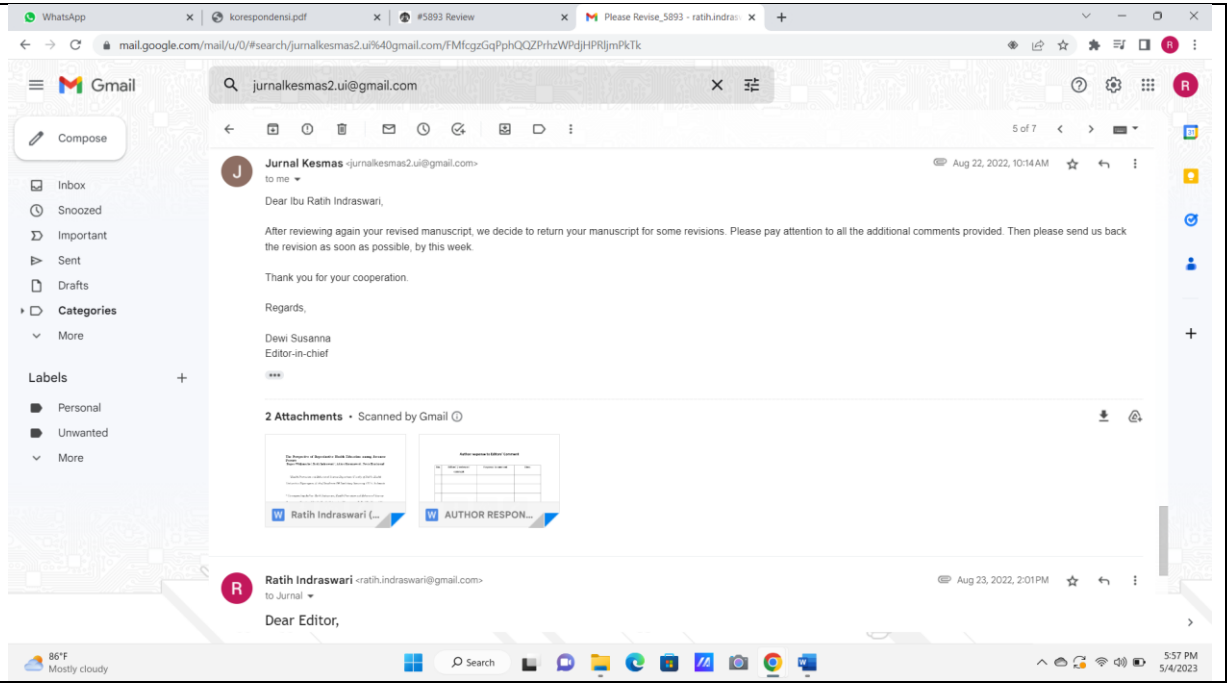
6	Revisi 3: Permintaan untuk merevisi sesuai masukan reviewer	9 Agustus 2022	

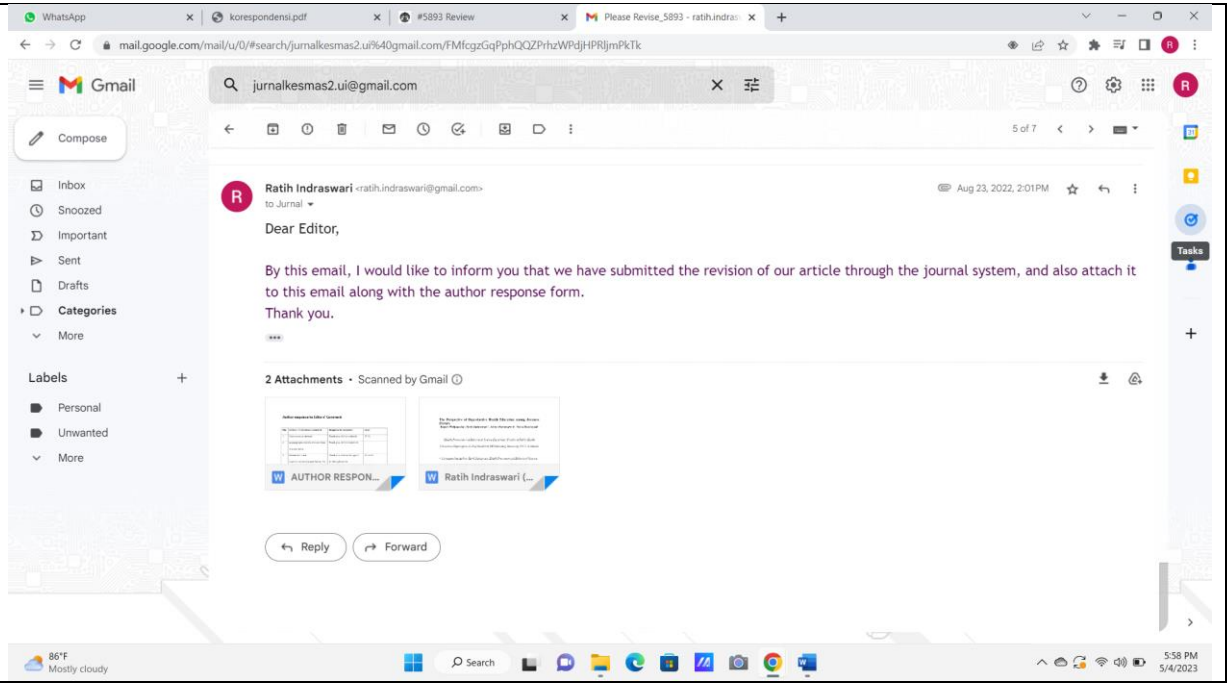
7	Perbaikan revisi 3 sesuai masukan reviewer	11 Agustus 2022	

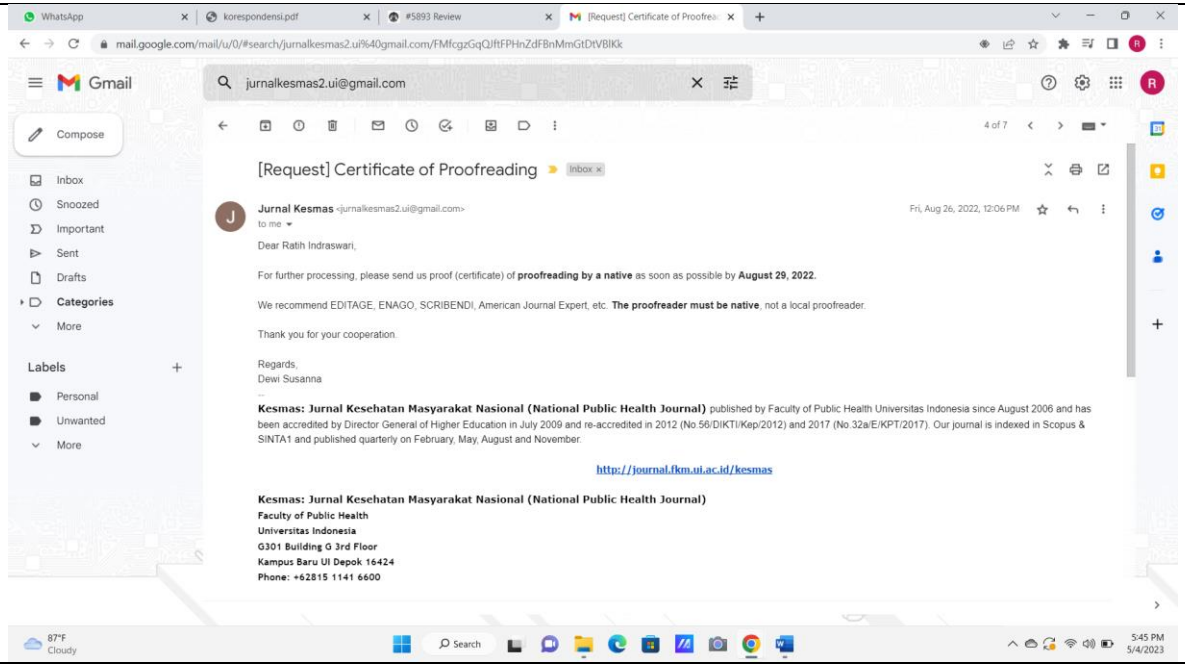
8	Revisi 4	15 Agustus 2022	

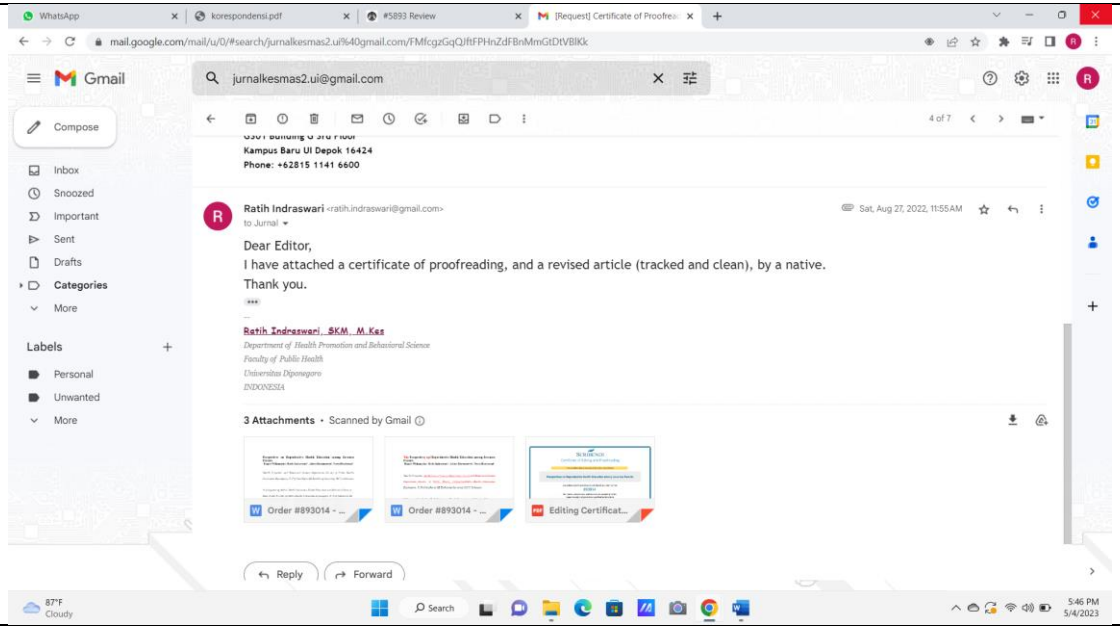
9	Perbaikan revisi 4	16 dan 21 Agustus 2022	

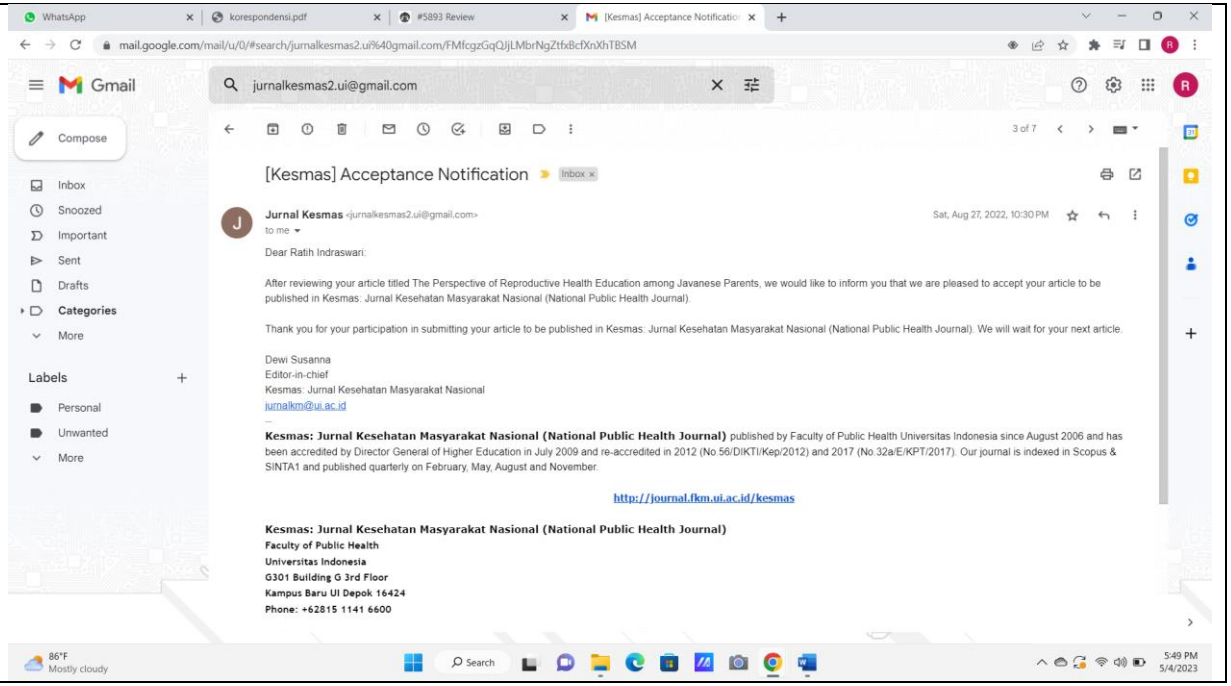
			 WhatsApp korespondensi.pdf #5893 Review Please Revise_5893 - ratih.indras mail.google.com/mail/u/0/#search/jurnalkesmas2.ui%40gmail.com/FMfcgzGqPphQQZPrhzWPdjHPRljmPkTk Gmail jurnalkesmas2.ui@gmail.com Compose Inbox Snoozed Important Sent Drafts Categories More Labels Personal Unwanted More 5 of 7 AUTHOR RESPON... Ratih Indraswari (... Ratih Indraswari <ratih.indraswari@gmail.com> to Jurnal Aug 21, 2022, 2:45 PM Dear Editor, We apologize for our imperfections revision before. By this email, I would like to inform you that we have submitted the revision of our article through the journal system, and also attach it to this email along with the author response form. Thank you. 2 Attachments • Scanned by Gmail 2. AUTHOR RESP... 1. Ratih Indraswar... 86°F Mostly cloudy Search 5:57 PM 5/4/2023

10	Revisi 5	22 Agustus 2022	

11	Perbaikan revisi 5	23 Agustus 2022	

12	Permintaan proofreading	26 Agustus 2022	

13	Pengiriman sertifikat proofreading dan artikel yang telah di proofread	27 Agustus 2022	

14	Notifikasi penerimaan artikel	21 Agustus 2022	

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Abstract: the method is too short	Sure. We've explained more detail.	18-20
2	Abstract: the result is descriptive	Sure. We've revised it.	20-21
3	Abstract: No need to inform recommendation	Sure. We've deleted it.	-
4	Method: make it detail	Sure.	83-95 97-115
5	Result: table 4, right total	Sure. We've revised it.	191-242
6	Discussion: Give opinion supported with refrences	Sure. We've added it.	309-313 326-330 339-352
7	Strength and limitations	Sure. We've added it.	354-366
8	Authors contribution	Sure. We've revised it.	391-395
9	References: no acronym, add URL	Sure. We've revised it.	401-530

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Please make it consistent throughout the article, whether using adolescent or children	Sure. We've revised and made them consistent.	83
2	It has not been explained about the background of why on Parents and why the Javanese tribe The background of the problem regarding adolescents aged 9-11 years is not clearly explained	Sure. We've added it and made it clear.	75-81
3	The method describes the calculation of the sample size using probability sampling rules, but it does not explain how the random procedure is carried out to obtain samples. There is a contradiction in the abstract that the sample was taken purposively. If the sample is obtained purposively, statistical analysis is sufficient to only descriptive statistics. Data interpretation can be carried out on tables 1, 2, and 3. If the sample is obtained purposively, then statistical inference analysis cannot be used. Thus, data interpretation cannot	Sorry for our mistake and carelessness. The sample is obtained purposively, so that we only interpreted the data in table 1, 2, and 3. We have revised it not only in method, but also abstract, result and discussion.	

	be carried out on tables 4 and 5. The use of statistical inference in the results, while the samples obtained purposively, especially for table 4 and 5.		
4	five questions about courtship permission → Is this question appropriate for the sample group of the age group 9-11 years?	Sorry for our mistake in using the word courtship instead of dating. We have revised it all through article. The sample is parents of children (children aged 9-11 years old). Question about dating permission is appropriate because we would like to know whether parent gives permission on dating to their children or not.	
5	Maybe it can be explained according to the parents who have children, what gender is the most?	Sorry, we didn't crosstab to analyze both. Our next research will discuss more about gender differences between fathers and mothers in dating permissiveness.	
6	What is the implemented solution?	Thank you. We have added it.	257-260

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Abstract: Variables measured? How collected? Population and sample?	Thank you. Due to words limitation in abstract, we've explained them more detail in method section. However, we mention the sampling technique and sample amount in abstract.	18-19
2	Abstract: Results? Show the statistic test results Conclusion?	Sure. We've added it.	20-26
3	Method: How many were there and how many the samples? And how to sampling them? Calculate the minimum sample for online survey using a proper formula. This is only for frequency? Could you please do advanced statistic tests: Chi square and then multivariate logistic regression. If possible please add some more variables for analysis.	Thank you. In the method section, we have written that the total population is not known for sure, and the sampling technique used is purposive (Lines 88-89 shows the criteria). Based on the results of reviews from previous reviewers, we got the knowledge if the sample is obtained purposively, statistical analysis is sufficient to only descriptive statistics, then statistical inference analysis cannot be used, so we eliminated the result of x2 and regression.	
4	Method: How it (online survey) done? How to get these teachers? Please describe in detail.	Sure. We've made it more detail.	92-99
5	Method: How many questions? What about the questions?	Sure. We've mentioned and explained it.	101-115
6	Method: Please mention that this version SPSS is free for public.	Sure. We've added it.	100

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Abstract: Variables measured? How collected? Population and sample?	Thank you. Due to words limitation in abstract, we've explained them more detail in method section. However, we've mentioned the sampling technique and sample amount in abstract.	18-19
2	Abstract: Results? Show the statistic test results Conclusion?	Sure. We've added it.	20-27
3	Method: How many were there and how many the samples? And how to sampling them? Calculate the minimum sample for online survey using a proper formula. This is only for frequency? Could you please do advanced statistic tests: Chi square and then multivariate logistic regression. If possible please add some more variables for analysis.	Thank you. In the method section, we have written that the total population is not known for sure, and the sampling technique used is purposive (Lines 88-89 shows the criteria). Based on the results of reviews from previous reviewers, we got the knowledge if the sample is obtained purposively, statistical analysis is sufficient to only descriptive statistics, then statistical inference analysis cannot be used, so we eliminated the result of x2 and regression. We also have added 2 variables.	92-95
4	Method: How it (online survey) done? How to get these teachers? Please describe in detail.	Sure. We've made it more detail.	96-108
5	Method: How many questions? What about the questions?	Sure. We've mentioned and explained it.	109-140
6	Method: Please mention that this version SPSS is free for public.	Sure. We've added it.	141
7	Don't use "we" in article	Sure. We've revised it all through article.	

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Conclusion in abstract	Thank you. We've added it.	27-31
2	A paragraph consists of more than one sentence.	Thank you. We've revised it.	
3	Please don't use we/us/our/ours/researcher/author and rewrite the sentences into passive voice.	Thank you. We've changed it all through article	113-124
4	SPSS: If you have a license please mention it; if you don't, please narrate it	Thank you. We used free version and we have write it.	158
5	You don't add variables	We have added 2 variables: parental monitoring and parent-child communication	
6	Method (Questionnaire): This statement with those in the table and the narrative of the table must be consistent. What are the five questions?	Thank you. We have make it consistent.	125-128
7	Method (Questionnaire): It is different with Table 2.	Thank you. Distribution frequency of variable parents' practice is on table 6.	
8	Characteristic: This variable	Thank you. We've described it.	116-124

	category has not been described in the method.		
9	Source : Please be specific about primary data	Thank you. We removed the source text below the table because it is unnecessary and can confuse the reader. All data in the table is the result of collecting data from this study (primary data source from the questionnaire survey)	
10	Table 2: The statement is different from in the method (must be consistent)	Thank you. We've made it consistent.	125-128
11	Please do not repeat what can be seen from the table.	Thank you. We've revised it through the result section.	
12	Table 5: It's not mentioned in the Method yet	Thank you. We've mentioned it.	148-153
13	Table 6: Please clarify, how to classify into bad and good?	Sure. We've explained it in the method section.	155-156
14	Table 6: This variable category has not been used in the method	Thank you. We've added in the method section	116-124
15	After table 5: This is not a sentence, but still a fragment.	Thank you. We've revised it.	207-216

16	After table 5: There are various kinds of work; Which one?	Thank you. We've made it obvious.	210-211
17	After table 5: Is this true? Check the Table (family income vs practice)	Thank you. We've revised and made it obvious.	211-214
18	Table 6: Attitude or practice you want to see?	Thank you. We made a mistake in writing title of table 6. We've revised it. On table 6, we want to see practice based on characteristics, attitude, parental monitoring and parent-child communication.	217-219

The Perspective of Reproductive Health Education among Javanese Parents

Bagoes Widjanarko [1], Ratih Indraswari[1*], Aditya Kusumawati[1], Novia Handayani[1]

[1]Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia

** Corresponding Author: Ratih Indraswari, Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia, E-mail: ratih.indraswari@gmail.com, Phone: +62-24-7460044*

Abstract

Adolescent is a common target population in reproductive health programs in Indonesia because information and experience are little considered in the middle phase of childhood. This study aimed to investigate perspectives of reproductive health education among Javanese parents of children aged 9-11 years old. This is a cross-sectional study conducted to 12,306 parents of children aged 9-11 years old in Semarang, Central Java, taken with a purposive sampling technique. Some parents agreed that reproductive health education at home was unnecessary and perceived it taboo, difficult, and awkward. Most parents were not transparent in providing reproductive health information to their children, by using other terms to name the genitals, considering the politeness aspect. Good practice of providing reproductive health information is slightly more common in mothers, unemployed parents, had higher education level, and had family income above

the regional minimum wage.

Keywords: children, reproductive health education, parents

Commented [K1]: Please make it consistent throughout the article, whether using adolescent or children.
Sure. We've made them consistent.

Introduction

Commented [WU2]: It has not been explained about the background of why on Parents and why the Javaness tribe
The background of the problem regarding adolescents aged 9-11 years is not clearly explained

Unwanted pregnancies among adolescents have become a health problem all over the world. Every year, approximately 16 million women aged 15-19 years and 2.5 million women under 16 years old in developing countries experience childbirth.[1] Additionally, the World Health Organization also stated that three million adolescent girls aged 15-19 years in Asian countries do an abortion each year.[2] In developing countries, the abortion rate has increased by around 11%.[3] The increased risk of abortion is influenced by the incidence of unwanted pregnancies.[4] On average, in Indonesia, 8% of abortions performed by adolescent girls aged less than 19 years are caused by unwanted pregnancy every year.[5]

Based on data from the 2015 Global School-based Health Survey (GSHS), 5.26% of junior and senior high school students in Indonesia have been in sexual intercourse, and only 13% of them used condoms.[6] This is in accordance with data from the Indonesian Ministry of Health which stated that the incidence of unwanted pregnancies in adolescents aged 15-19 years in Indonesia continues to increase. Data showed unwanted pregnancies increased from 1.97% in 2013[7] to 16.4% in 2017.[8] Pre-assessment by Indonesian Planned Parenthood Association found that 40.6% of 64 adolescents with unwanted pregnancies in Central Java lived in urban areas. That means most of them were the residents of Semarang, the capital city of Central Java Province.[9]

According to the Indonesia Demographic and Health Survey (IDHS), the percentage of adolescents who had sexual intercourse for the first time between 15-19 years of age

increased from 59% in 2012 to 74% in 2017.[10] The GSHS shows that 27.35% of junior high and high school students in Indonesia have been sexually active before they turn to 14 years old.[6] Meanwhile, 6% of adolescents reported having sexual intercourse when they were 11-14 years old, the average age at the beginning of puberty or the transition from childhood to adolescence.[8] In addition, the age of menarche in Indonesia has declined to 11 days younger per year.[11] This indicates that adolescents in Indonesia might have their first sexual intercourse at a younger age.

Sexual behavior is significantly related to access to pornography ($p = 0.0001$).[12] Access to magazines, books, pornographic films, and porno-action causes adolescents to have sexual intercourse at an early age (13-15 years).[13] A previous study reports that 60.6% of adolescents accessed pornography at least once per day mostly on their personal cellular phone (59.2%) at their home. In fact, 1.2% of adolescents are exposed to pornography from the age of 5-8 years, from their parent's cellular phone.[12] Parental supervision and communication with children affect adolescents to be at risk of sexual behavior.[14] As around 50% of parents did not monitor the activities of their children, and 63% provided free internet access without watching over their children's online activities.[12]

Low parental involvement and supervision are likely proven to affect adolescents to be at risk of having sexual behavior. The adolescent reproductive health indicator in the 2017 IDHS showed peers (57.5%) and mothers (45.2%) most likely have opportunities to address reproductive health issues with their adolescent daughters.[15] However, some parents refuse to talk about reproductive health because they are worried about its effects on their children's behavior. Parents feel that one day the child will understand the topic themselves from teachers at schooL.[16] A previous study states that even teachers feel

awkward and embarrassed when they have to address reproductive health issues to students in class.[17]

Based on the background above, risky premarital sex behavior is very important to prevent. Prevention should be done as early as possible, at least when the child will enter puberty. At this pre-pubertal age, children should have acquired sufficient knowledge about reproductive health. Parents have a responsibility to educate their children in preparing for puberty, but based on the data mentioned above, it can be seen that parents in Central Java are reluctant to share information about reproductive health because it is considered taboo in Javanese culture.[18] From the background above of reproductive health education, this study aimed to describe the perspective of reproductive health education among Javanese parents of children aged 9-11 years old.

Method

This study employed an explanatory research method with a cross-sectional approach. The population of this study is parents of students in grade 4-6 of elementary schools in Semarang, with age of children are 9-11 years old. The survey was conducted online (mobile-based data collection) in March 2021 because it was impossible to conduct face-to-face interviews during the large scale social distancing that had been in place since the beginning of the COVID-19 pandemic. We used a self-administered questionnaire in collecting the data by Google Forms and helped by the teacher from 327 public elementary schools in Semarang to share the link of the questionnaire to the student's parents through their class WhatsApp Group. The final sample comprised 12,306 respondents who met the criteria and completed the entire survey.

Data entry and analysis were conducted using IBM SPSS Statistics ver. 20.0 software

Commented [K3]: The method describes the calculation of the sample size using probability sampling rules, but it does not explain how the random procedure is carried out to obtain samples. There is a contradiction in the abstract that the sample was taken purposively.

Commented [K4R3]: If the sample is obtained purposively, statistical analysis is sufficient to only descriptive statistics. Data interpretation can be carried out on tables 1, 2, and 3.
If the sample is obtained purposively, then statistical inference analysis cannot be used. Thus, data interpretation cannot be carried out on tables 4 and 5.

Commented [K5R3]: The use of statistical inference in the results, while the samples obtained purposively, especially for table 4 and 5.

(IBM Corp., Armonk, NY, USA). The independent variables in this study were parents' characteristics (age, sex, education, occupation, and income) and parents' attitudes toward reproductive health education for children, consisted of five questions about dating permission, and parents' opinion in delivering reproductive health information for children. The attitude were scored 1 for each permissive answer and 0 for each less permissive answer. The total score of attitude were 10. An attitude score of 5 or less was categorized as less permissive, and a score of 6 or more was classified as permissive. The dependent variable was parents' practice in providing reproductive health education to their children, consisted of six questions about knowing pubertal status of children, content of reproductive health information have been discussed, limiting children's relationships with opposite-sex friends, using pseudo terms in naming genitals, encounter difficulties to discuss, and parents' response toward children's question. The practice were scored 1 for each good practice answer and 0 for each bad practice answer. The total score of practice were 10. A practice score of 5 or less was categorized as bad practice, and a score of 6 or more was classified as good practice.

Univariate analysis was used on the data to determine the frequency of each variable distribution. This study was carried out in 2021 after approval from the Faculty of Public Health Universitas Diponegoro was obtained (ethics code: 158/EA/KEPK-FKM/2021).

Commented [WU6]: Is this question appropriate for the sample group of the age group 9-11 years?

Results

There were 34.6% fathers and 65.4% mothers participating in this study (see Table 1). Around 79% of respondents were in adulthood (aged 26-45 years old), 52.9% graduated from senior high school, 29.8% were unemployed, and 70.8% had family income more than regional minimum wage (IDR 2,810,025).

Table 1. Respondent Characteristic

Characteristic	n	%
Age		
Adolescent	5	0
Adult	9,717	79.0
Elderly	2,584	21.0
Sex		
Male (father)	4,260	34.6
Female (mother)	8,046	65.4
Education		
No education	99	0.8
Elementary school	1,187	9.6
Junior school	1,964	16.0
High school	6,506	52.9
Diploma	1,012	8.2
Undergraduate	1,410	11.5
Postgraduate	128	1.0
Occupation		
Unemployed	3,664	29.8
Civil servant/Police/Army/Public employees	508	4.1
Private employees	3,011	24.5
Entrepreneur	2,094	17.0
Farmer	35	0.3
Fisherman	8	0.1
Labor/maid	1,610	13.1
Other	1,376	11.2
Family income		
< minimum wage	8,712	70.8
> minimum wage	3,594	29.2
Total	**12,306**	**100.0**

Source: Primary Data, 2021

Table 2 shows parents' attitudes toward reproductive health education to their children. Around 29.5% of parents thought that reproductive health education at home was unnecessary, and 45% perceived it as taboo. About 41.5% perceived discussing reproductive health issues with children as awkward, and 6.3% considered monitoring children's daily interactions with friends unimportant. Nearly 89% of parents limited their children's friendships with the opposite sex. Nevertheless, 13.7% of parents gave their

children permission to start dating at age 9-11, considering the child's maturity.

Commented [WU7]: Maybe it can be explained according to the parents who have children, what gender is the most?

Table 2. Parent's Attitude in Delivering Reproductive Health Information

Variable	n	%
Feeling unnecessary	3,625	29.5
Feeling taboo	5,543	45.0
Feeling awkward	5,112	41.5
Feeling unimportant to monitor children's interactions with friends	771	6.3
Giving dating permission	1,685	13.7

Source: Primary Data, 2021

In Table 3, most of the parents (89.9%) already knew their children's puberty status: menstruation for girls, a wet dream for boys, or pubescent phase. Almost a half (44.4%) of parents never provided information about reproductive health issues, but some parents gave reproductive health information, such as reproductive organs and their function (21.2%), menstruation and wet dream (27.6%), physical changes after puberty (43.5%), and pregnancy (7.4%). However, 72.7% of parents substituted names of genital organs while discussing reproductive health issues. Most of the parents encountered difficulties in bringing up reproductive health issues with their children (73.1%), but 84.9% of parents likely addressed reproductive health issues honestly when children asked. In addition, 6% of parents changed the topic, some scolded (1.1%), or gave a hazy explanations (1.3%) when responding to children's questions.

Table 3. Parent's Practice in Delivering Reproductive Health Information

Variable	n	%
Knowing children's puberty status	11,603	89.9
Reproductive health material that has been delivered:		
Reproductive organs and function	2,611	21.2
Menstruation/wet dream	3,391	27.6
Physical changes after puberty	5,347	43.5
Pregnancy	910	7.4
Never	5,461	44.4
Limiting children's relationships with opposite-sex friends	10,951	89.0

Using pseudo terms in naming genitals	8,943	72.7
Encounter difficulties to discuss	8,992	73.1
Parent's respond to children's questions:		
No respond /changing topic	736	6.0
Scolding children	136	1.1
Giving honest explanation	10,442	84.9
Giving hazy explanation	166	1.3
Others	826	6.7

Source: Primary Data, 2021

Good practice of productive health discussion is slightly more common in female/mothers than in male/fathers (see table 4). The higher of education level, the better practice in providing reproductive health information. On average, unemployed parents provided reproductive health information slightly better than working parents. Parents who had family income above the regional minimum wage had good practice of providing reproductive health information. Those who perceived reproductive health education as necessary and normally provided reproductive health education by monitoring children's friendships and restricting dating for their children.

Table 4. Crosstab between Parent's Characteristic and Attitude toward Practice in Delivering Reproductive Health Information

Variable	Bad		Good		Total	
	n= 6,011	%	n= 6,295	%	n= 12,306	%
Age						
Adolescent	3	60.0	2	40.0	5	0
Adult	4,765	49.0	4,952	51.0	9,717	79.0
Elderly	1,243	48.1	1,341	51.9	2,584	21.0
Sex						
Male (father)	2,324	54.6	1,936	45.4	4,260	34.6
Female (mother)	3,687	45.8	4,359	54.2	8,046	65.4
Education						
No education	61	61.6	38	38.4	99	0.8
Elementary school	664	55.9	523	44.1	1,187	9.6
Junior school	1,109	56.5	855	43.5	1,964	16.0
High school	3,291	50.6	3,215	49.4	6,506	52.9
Diploma	367	36.3	645	63.7	1,012	8.2
Undergraduate	480	34.0	930	66.0	1,410	11.5
Postgraduate	39	30.5	89	69.5	128	1.0
Occupation						

Unemployment	1,727	47.1	1,937	52.9	3,664	29.8
Civil servant/police/army/public employees	172	33.9	336	66.1	508	4.1
Private employees	1,496	49.7	1,515	50.3	3,011	24.5
Entrepreneur	1,031	49.2	1,063	50.8	2,094	17.0
Farmer	25	71.4	10	28.6	35	0.3
Fisherman	3	37.5	5	62.5	8	0.1
Labor/maid	912	56.6	698	43.4	1,610	13.1
Other	645	46.9	731	53.1	1,376	11.2
Family income						
< minimum wage	4,568	52.4	4,144	47.6	8,712	70.8
> minimum wage	1,443	40.2	2,151	59.8	3,594	29.2
Feeling unnecessary						
Agree	2,384	65.8	1,241	34.2	3,625	29.5
Disagree	3,627	41.8	5,054	58.2	8,681	70.5
Feeling taboo						
Agree	3,596	64.9	1,947	35.1	5,543	45.0
Disagree	2,415	35.7	4,348	64.3	6,763	55.0
Feeling awkward						
Agree	3,374	66.0	1,738	34.0	5,112	41.5
Disagree	2,637	36.7	4,557	63.3	7,194	58.5
Feeling unimportant to monitor children's interactions with friends						
Agree	441	57.2	330	42.8	771	6.3
Disagree	5,570	48.3	5,965	51.7	11,535	93.7
Giving dating permission						
Agree	983	58.3	702	41.7	1,685	13.7
Disagree	5,028	47.3	5,593	52.7	10,621	86.3

Source: Primary Data, 2021

Discussion

Most of the respondents were in adulthood, productive age crucial for improving cognitive and social abilities. It means that age has an influence on the level of knowledge. The older a person is, the more mature he/she is in thinking and acting towards problems.[20] This study reported no relationship between age and parental education about reproductive health, but parents aged <26 years had a worse attitudes towards reproductive health education at home than older parents (adult and elderly). Besides influencing a cognitive perspective, age is also related to beliefs. Mature individuals will be trusted more than immature ones. It also affects comprehension and mindsets. As people get older, their mindsets and knowledge will also develop. There is no report about

a decline in intellectual ability, problem solving, and verbal ability at this age.[21] That means that parents at a productive age should be able to become good health communicators for their children.

This study involved female participants/mothers more than male ones/fathers. Normally, in Javanese ethnic groups, mothers are responsible for household and child affairs. The majority of Javanese women also encounter a double burdens to take care of family and raise money for family living. One-third of the parents were unemployed, and most of the parents had family income under the regional minimum wage. Living in a patriarchal culture causes women not to have an equal opportunity to obtain better education and income than men.[22] Men are the breadwinners for the family, while women have to focus more on household chores and childbearing. As a result, mothers have a greater responsibility for their child's reproductive health issues compared to fathers. In the Javanese tradition, mothers are responsible to monitor their children's growth such as their weight and height only. While children's understanding of and self-efficacy in reproductive health tend to be neglected. Prosperous parents tend to provide health information better than less prosperous parents due to the sufficiency of family time.

More than half of the parents in this study had graduated from high school, neither low nor high education levels. Education level is an important factor in honing skills to create educated humans who are expected to meet educational goals. Education makes a major contribution to human interaction in the environment. Skills and knowledge acquired at school help advocate communication. Community education affects perceptions and conceptual abilities in delivering and receiving messages/information. It will also affect the arrangement of thoughts and feelings about responses or feedback given to a communicator or communicant.[23] People with higher education may

communicate better in terms of content and attitudes. Human behavior as the result of learning reflects changes due to environmental influences.[24] Therefore, this study reported that parents with higher-level education provide better reproductive health education to their children at home.

Most parents knew the puberty status of their children and limited children's relationships with opposite-sex friends. There were 13.7% of mothers who gave permission for dating at an early age because it was considered normal, and 6.3% thought monitoring children's friendships was unnecessary. Monitoring, one of the parental roles, could be done by checking children's activities and maintaining positive activities. Children who lack parental monitoring may feel and act more freely as their parents do not give well-defined rules. Several previous studies have also proved that the lack of parental monitoring results in accessing pornography and risky sexual behavior among their children.[12,25,26] Parents who do not supervise and control children tend to make children more daring to violate social norms. Parents play a role in controlling, educating, reminding, and advising children they have indications of risky behavior.

Monitoring children's activities should go by checking children's media use and building good bonding and communication between parents and children. Most of the parents felt the need to convey reproductive health information to their children, but they faced difficulties in starting the discussions to considering it taboo or awkward. This is in accordance with other research which states that parents feel embarrassed and unconfident when discussing reproductive health issues.[27,28] Most parents perceive reproductive health as an adult affair, and privacy, and consider it taboo.[29] In fact, many parents refused to take part in this study immediately after knowing the research topic. As a result, children will look for reproductive health information themselves without

parental control and thus may have misleading information or even sexual intercourse.

Previous research has found that parents mostly did not receive reproductive education when they were young. Hence, parents step back from reproductive health education, and children might be curious to experiment with reproduction.[27] Children's questions about reproductive health are often not answered properly by parents. Some parents may change the topic, give no response, or even scold the child for asking about that topic. This kind of response not only makes children misinterpret, but also stimulates children to seek information from other sources that might be not valid.

Almost half of the parents never provided reproductive health education to their children. As many as 84.9% avoided providing health information honestly to their children, but 72.7% of parents used pseudo terms when referring to genitals. Male genitalia (penis) is named *manuk* (bird*)* or *titit* in Javanese terms. Using word substitution strategy does not enable children to the real concept of the reproductive organ sometimes, but they only grasp a similar understanding of the content.[31] This is an attempt to translate taboo terms with other words or phrases.[30] As a result, children likely avoid the topic when discussing reproductive health with parents.

Reproductive health education should be addressed at an early age to reduce adolescent pregnancies. Some studies indicate that starting reproductive health education at an early age helps parents talk to children.[28,32,33] Through educational supplies that are carried out as early as possible, it can prevent adolescents from falling into the massive health risk behaviors encountered as teenagers. A conversation about reproductive health has a positive impact to avoid adolescent pregnancies.[34] Poor parental communication and lack of skills and confidence are linked to poor reproductive health among adolescents. The more educated the parents are, the easier they discuss reproductive

health issues with their children. Parents should be able to follow the development of their children by assessing children' needs. As the closest person, parents should always try to improve communication skills and learning information on adolescent reproductive health so that they can provide valid information to their children. Thus, parents will be children' close friend who can be trusted by their children in finding correct reproductive health information.

Strenghts and Limitations

To participate in this online survey, respondents relied heavily on the availability of internet access. Some limitations in this study also have to be acknowledged concerning the fact that data were collected by online. This causes the researcher to be unable to know the real condition of the respondent when answering the survey. To overcome this, in the phase of cleaning data, researchers not only eliminated the respondents who answered the form more than once, but also the completeness of the answers, and the suitability of respondents' answers based on favorable and unfavorable questions. We suggest for further research to investigate parents' communication skill and exploring the obstacles about discussing reproductive health matter with children, by in-depth and face-to-face qualitative research.

Many studies has been reported about parents' communication skill about discussing reproductive health information to their teenagers. Our study revealed the parents perspective in delivering reproductive health information to their children aged 9-11 years old, which has not been explored in previous studies yet. Our study also involves a large number of samples so that it can gather deeper information and more accurate data.

Conclusion

Most parents believe that reproductive health information is important for their children, but they find difficult to facilitate their children with this topic due to taboo and awkward feelings. Parents tend to avoid direct talks about reproductive health by replacing the

Commented [WU8]: What is the implemented solution?

original terms with other pseudo terms to reduce taboo talks. Parents who allow their children to have dating should equip them with adequate health information to avoid risky health behavior. The ministry of health and family welfare should empower parents to bring open discussion about reproductive health issues with their children. Hence, children will have trustworthy sources of information in the family circle.

Abbreviations

GSHS: Global School-based Health Survey; IDHS: Indonesia Demographic and Health Survey; COVID-19: Corona Virus Disease 2019.

Ethics Approval and Consent to Participate

The study was approved by the Ethics Committee of Faculty of Public Health, Universitas Diponegoro (Approval ID: 158/EA/KEPK-FKM/2021).

Competing Interest

Author declares that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

Availability of Data and Materials

The data that support the findings of this study are available upon reasonable request from the corresponding author. The data are not publicly available as it contains information that could compromise the privacy of research participants.

Authors Contribution

BW and RI conceived the research concept. RI conducted methodology, data analysis, writing review and editing manuscript. NH and AK performed data collection, and

writing original draft. All authors discussed the final result and contributed to the final manuscript.

Acknowledgments

The authors would like to thank the respondent and schools who participated in this study. We would also thank all colleagues and students who provided help during the process of making this study.

References

1. Ajayi AI, Odunga SA, Oduor C, Ouedraogo R, Ushie BA, Wado YD. "I was tricked": understanding reasons for unintended pregnancy among sexually active adolescent girls. Reprod Health. 2021;18(19).
2. Bearak J, Popinchalk A, Alkema L, Sedgh G. Global, Regional, and Subregional Trends in Unintended Pregnancy and Its Outcomes from 1990 to 2014: Estimates from a Bayesian Hierarchical Model. Lancet Glob Heal. 2018;6(4):e380–9.
3. Ganatra B, Gerdts C, Rossier C, Ronald B, Jr J, Tunçalp Ö, et al. Global, Regional, and Subregional Classification of Abortions by Safety, 2010–14: Estimates from a Bayesian Hierarchical Model. Lancet. 2017;390(November 25):2372–81.
4. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The Incidence of Abortion and Unintended Pregnancy in India, 2015. Lancet Glob Heal. 2018;6(1):111–20.
5. Ocviyanti D, Dorothea M. Aborsi di Indonesia. J Indones Med Assoc. 2018;68(6):213–5.
6. Kementerian Kesehatan Republik Indonesia. Perilaku Berisiko Kesehatan pada Pelajar SMP dan SMA di Indonesia [Internet]. 2016. Available from: https://www.who.int/ncds/surveillance/gshs/GSHS_2015_Indonesia_Report_Bahasa.pdf?ua=1
7. Kementerian Kesehatan Republik Indonesia. Situasi Kesehatan Reproduksi Remaja [Internet]. Jakarta; 2015. Available from: http://www.depkes.go.id/download.php?file=download/pusdatin/infodatin/infodat

in reproduksi remaja-ed.pdf
8. Badan Kependudukan dan Keluarga Berencana Nasional. Survei Demografi dan Kesehatan Indonesia 2017: Buku Remaja [Internet]. Jakarta; 2018. Available from: https://archive.org/details/LaporanSDKI2017Remaja
9. Saksono A. Tingginya Kehamilan Remaja Tuntut PKBI Jateng Susun Program Kerja 2015-2018 [Internet]. 2019 [cited 2019 Sep 24]. Available from: https://pkbijateng.or.id/tingginya-kehamilan-remaja-tuntut-pkbi-jateng-susun-program-kerja-2015- 2018/
10. Kementerian Kesehatan Republik Indonesia. Hasil Utama Riskesdas 2018. Jakarta; 2018.
11. Wahab A, Mada UG, Wilopo S, Mada UG, Hakimi M, Mada UG. Declining age at menarche in Indonesia: a systematic review and meta-analysis. Int J Adolesc Med Health. 2018;(September):1–9.
12. Gayatri S, Shaluhiyah Z, Indraswari R. Faktor-faktor yang Berhubungan dengan Frekuensi Akses Pornografi dan Dampaknya terhadap Perilaku Seksual pada Remaja di Kota Bogor. J Kesehat Masy. 2020;8(3):410–9.
13. Wulandari S. Perilaku Seksual Pranikah Berisiko terhadap Kehamilan Tidak Diinginkan pada Remaja SMKN Tandun Kabupaten Rokan Hulu. J Matern Neonatal. 2016;2(2):74–84.
14. Wanufika I, Ismail D. Komunikasi Orang Tua tentang Seksualitas terhadap Perilaku Seksual Pranikah Remaja. Ber Kedokt Masy. 2017;33(10):495–500.
15. Badan Kependudukan dan Keluarga Berencana Nasional. Survei Demografi dan Kesehatan Indonesia 2017: Kesehatan Reproduksi Remaja (Indikator Utama) [Internet]. Jakarta: BKKBN; 2018. 23 p. Available from: https://cis.bkkbn.go.id/latbang/?wpdmpro=indikator-utama-key-indicator-report-kespro-remaja-sdki-2017_idhs-2017_english-version
16. Rusady IK, Shaluhiyah Z, Husodo BT. Analisis Kebutuhan Pendidikan Kesehatan Reproduksi pada Siswa SMP di Wilayah Kecamatan Pedurungan Semarang. J Kesehat Masy. 2017;5(5):1010–20.
17. Motlagh M, Rejaei L, Jonidi A. Priorities in Health Education Needs of Youth Based on Needs Assessment and Stakeholder Involvement, in Areas Covered by the Health Departments of Iran University of Medical Sciences. J Educ

Community Heal. 2016;3(1):51–7.
18. Indraswari R, Shaluhiyah Z, Widjanarko B, Suryoputro A. Factors of Mothers' Hesitation in Discussing Reproductive Health. Int J Public Heal Sci. 2021;10(4):801–6.
19. Rob U, Ghafur T, Bhuiya I, Talukder MN. Reproductive and Sexual Health Education for Adolescents in Bangladesh: Parents' View and Opinion. Int Q Community Health Educ. 2006;25(4):351–65.
20. Deary IJ, Corlet J, Gow AJ, Harris SE. Age-associated cognitive decline. Br Med Bull. 2009;92(1):135–52.
21. Correia R, Barroso J, Nieto A. Age-Related Cognitive Changes: The Importance of Modulating Factors. J Geriatr Med Gerontol. 2018;4(2):1–10.
22. Sigiro AN. Care Economy and the Burden of Housewives' Work in Indonesia. J Peremp. 2018;23(4):249.
23. Navickiene V, Sederevičiūtė-Pačiauskienė Ž, Valantinaitė I, Zilinskaite V. The relationship between communication and education through the creative personality of the teacher. Creat Stud. 2019;12(1):49–60.
24. Obaki SO. Impact of Classroom Environment on Children's Social Behavior. Int J Educ Pract. 2017;5(1):1–7.
25. Dávila SPE, Champion J, Monsiváis MG, Tovar M, Arias MLF. Mexican Adolescents' Self-Reports of Parental Monitoring and Sexual Communication for Prevention of Sexual Risk Behavior. J Pediatr Nurs. 2017;35:83–89.
26. Handayani S. Faktor-faktor yang Mempengaruhi Kejadian Kehamilan Tidak Diinginkan pada Remaja di Kelurahan Balecatur Gampingan Sleman Yogyakarta. J Kesehat Samudra Ilmu. 2016;7(1).
27. Shin H, Lee JM, Min JY. Sexual Knowledge, Sexual Attitudes, and Perceptions and Actualities of Sex Education among Elementary School Parents. Child Heal Nurs Res. 2019;25(3):312–23.
28. Robinson KH, Smith E, Davies C. Responsibilities, tensions and ways forward: parents' perspectives on children's sexuality education. Sex Educ. 2017;17(3):333–47.
29. Runcan R, Bahnaru A. Sex Education Revisited: School-based Sex Education. Analele Univ din Craiova. 2019;18(1):1–7.

30. Robati N, Zahra F, Zand F. Translation of Taboos: The Absolutely True Diary of a Part Time Indian. Int J Appl Linguist English Lit. 2018;7(3):35–40.
31. Khoshsaligheh M. A Socio-cultural Study of Taboo Rendition in Persian Fansubbing: An Issue of Ressistance. Lang Intercult Commun. 2018;18(6):663–80.
32. Nambambi NM, Mufune P. What Is Talked About When Parents Discuss Sex with Children: Family Based Sex Education In Windhoek, Namibia. Afr J Reprod Health. 2011;15(4):120–9.
33. Bankole A, Biddlecom A, Guiella G, Singh S, Zulu E, Health AJR. Sexual Behavior , Knowledge and Information Sources of Very Young Adolescents in Four Sub-Saharan African Countries. 2007;
34. Azira N, Abdullah FB, Muda SM, Zain NM. The role of parents in providing sexuality education to their children children. Makara J Heal Res. 2020;24(3):157–63.

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Abstract: the method is too short	Sure. We've explained more detail.	18-20
2	Abstract: the result is descriptive	Sure. We've revised it.	20-21
3	Abstract: No need to inform recommendation	Sure. We've deleted it.	-
4	Method: make it detail	Sure.	83-95 97-115
5	Result: table 4, right total	Sure. We've revised it.	191-242
6	Discussion: Give opinion supported with refrences	Sure. We've added it.	309-313 326-330 339-352
7	Strength and limitations	Sure. We've added it.	354-366
8	Authors contribution	Sure. We've revised it.	391-395
9	References: no acronym, add URL	Sure. We've revised it.	401-530

The Perspective of Reproductive Health Education among Javanese Parents

Bagoes Widjanarko [1], Ratih Indraswari[1*], Aditya Kusumawati[1], Novia Handayani[1]

[1]Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia

** Corresponding Author: Ratih Indraswari, Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia, E-mail: ratih.indraswari@gmail.com, Phone: +62-24-7460044*

Abstract

Adolescent is a common target population in reproductive health programs in Indonesia because information and experience are little considered in the middle phase of childhood. This study aimed to investigate perspectives of reproductive health education among Javanese parents of children aged 9-11 years old. This is a cross-sectional study conducted to 12,306 parents of children aged 9-11 years old in Semarang, Central Java, taken with a purposive sampling technique. Some parents agreed that reproductive health education at home was unnecessary and perceived it taboo, difficult, and awkward. Most parents used other terms to name the genitals, considering the politeness aspect. Results showed age (p = 0.618), parents' characteristics, and attitudes were related to the provision of reproductive health education at home. The risk factors that influence the

provision of reproductive health education at home were attitude toward feelings i.e., unnecessary (OR = 1.512), taboo (OR = 1.898), awkwardness (OR = 1.983), and giving courtship permission (OR = 1.323). Parents were not transparent in providing reproductive health information to their children.

Keywords: Children, reproductive health education, parents

Introduction

Unwanted pregnancies among adolescents have become a health problem all over the world. Every year, approximately 16 million women aged 15-19 years and 2.5 million women under 16 years old in developing countries experience childbirth.[1] Additionally, the World Health Organization also stated that three million adolescent girls aged 15-19 years in Asian countries do an abortion each year.[2] In developing countries, the abortion rate has increased by around 11%.[3] The increased risk of abortion is influenced by the incidence of unwanted pregnancies.[4] On average, in Indonesia, 8% of abortions performed by adolescent girls aged less than 19 years are caused by unwanted pregnancy every year.[5]

Based on data from the 2015 Global School-based Health Survey (GSHS), 5.26% of junior and senior high school students in Indonesia have been in sexual intercourse, and only 13% of them used condoms.[6] This is in accordance with data from the Indonesian Ministry of Health which stated that the incidence of unwanted pregnancies in adolescents aged 15-19 years in Indonesia continues to increase. Data showed unwanted pregnancies increased from 1.97% in 2013[7] to 16.4% in 2017.[8] Pre-assessment by Indonesian Planned Parenthood Association found that 40.6% of 64 adolescents with unwanted pregnancies in Central Java lived in urban areas. That means most of them were

the residents of Semarang, the capital city of Central Java Province.[9]

According to the Indonesia Demographic and Health Survey (IDHS), the percentage of adolescents who had sexual intercourse for the first time between 15-19 years of age increased from 59% in 2012 to 74% in 2017.[10] The GSHS shows that 27.35% of junior high and high school students in Indonesia have been sexually active before they turn to 14 years old.[6] Meanwhile, 6% of adolescents reported having sexual intercourse when they were 11-14 years old, the average age at the beginning of puberty or the transition from childhood to adolescence.[8] In addition, the age of menarche in Indonesia has declined to 11 days younger per year.[11] This indicates that adolescents in Indonesia might have their first sexual intercourse at a younger age.

Sexual behavior is significantly related to access to pornography ($p = 0.0001$).[12] Access to magazines, books, pornographic films, and porno-action causes adolescents to have sexual intercourse at an early age (13-15 years).[13] A previous study reports that 60.6% of adolescents accessed pornography at least once per day mostly on their personal cellular phone (59.2%) at their home. In fact, 1.2% of adolescents are exposed to pornography from the age of 5-8 years, from their parent's cellular phone.[12] Parental supervision and communication with children affect adolescents to be at risk of sexual behavior.[14] As around 50% of parents did not monitor the activities of their children, and 63% provided free internet access without watching over their children's online activities.[12]

Low parental involvement and supervision are likely proven to affect adolescents to be at risk of having sexual behavior. The adolescent reproductive health indicator in the 2017 IDHS showed peers (57.5%) and mothers (45.2%) most likely have opportunities to address reproductive health issues with their adolescent daughters.[15] However, some

parents refuse to talk about reproductive health because they are worried about its effects on their children's behavior. Parents feel that one day the child will understand the topic themselves from teachers at schooL.[16] A previous study states that even teachers feel awkward and embarrassed when they have to address reproductive health issues to students in class.[17] Against this backdrop of reproductive health education, this study aimed to describe the perspective of reproductive health education among Javanese parents of adolescents and to investigate the risk factors against parental monitoring on children's reproductive health.

Method

This study employed an explanatory research method with a cross-sectional approach. The population of this study is parents of students in grade 4-6 of elementary schools in Semarang, with age of children are 9-11 years old. The sample size was calculated using the proportion estimation formula at a 95% confidence interval. An estimated proportion of parents discussed reproductive health matters with their children was at 27%,[18] the minimum sample required was 305 respondents. The survey was conducted online (mobile-based data collection) in March 2021 because it was impossible to conduct face-to-face interviews during the large scale social distancing that had been in place since the beginning of the COVID-19 pandemic. We used a self-administered questionnaire in collecting the data by Google Forms and helped by the teacher from 327 public elementary schools in Semarang to share the link of the questionnaire to the student's parents through their class WhatsApp Group. The final sample comprised 12,306 respondents who met the criteria and completed the entire survey.

Data entry and analysis were conducted using IBM SPSS Statistics ver. 20.0 software

(IBM Corp., Armonk, NY, USA). The independent variables in this study were parents' characteristics (age, sex, education, occupation, and income) and parents' attitudes toward reproductive health education for children, consisted of five questions about courtship permission, and parents' opinion in delivering reproductive health information for children. The attitude were scored 1 for each permissive answer and 0 for each less permissive answer. The total score of attitude were 10. An attitude score of 5 or less was categorized as less permissive, and a score of 6 or more was classified as permissive. The dependent variable was parents' practice in providing reproductive health education to their children, consisted of six questions about knowing pubertal status of children, content of reproductive health information have been discussed, limiting children's relationships with opposite-sex friends, using pseudo terms in naming genitals, encounter difficulties to discuss, and parents' response toward children's question. The practice were scored 1 for each good practice answer and 0 for each bad practice answer. The total score of practice were 10. A practice score of 5 or less was categorized as bad practice, and a score of 6 or more was classified as good practice.

Univariate analysis was used on the data to determine the frequency of each variable distribution. Statistical tests using chi-square and logistic regression were conducted to examine the factors' influence on parents' practice in providing reproductive health education to their children. This study was carried out in 2021 after approval from the Faculty of Public Health Universitas Diponegoro was obtained (ethics code: 158/EA/KEPK-FKM/2021).

Results

There were 34.6% fathers and 65.4% mothers participating in this study (see Table 1).

Around 79% of respondents were in adulthood (aged 26-45 years old), 52.9% graduated from senior high school, 29.8% were unemployed, and 70.8% had family income more than regional minimum wage (IDR 2,810,025).

Table 1. Respondent Characteristic

Characteristic	n	%
Age		
Adolescent	5	0
Adult	9,717	79.0
Elderly	2,584	21.0
Sex		
Male (father)	4,260	34.6
Female (mother)	8,046	65.4
Education		
No education	99	0.8
Elementary school	1,187	9.6
Junior school	1,964	16.0
High school	6,506	52.9
Diploma	1,012	8.2
Undergraduate	1,410	11.5
Postgraduate	128	1.0
Occupation		
Unemployed	3,664	29.8
Civil servant/Police/Army/Public employees	508	4.1
Private employees	3,011	24.5
Entrepreneur	2,094	17.0
Farmer	35	0.3
Fisherman	8	0.1
Labor/maid	1,610	13.1
Other	1,376	11.2
Family income		
< minimum wage	8,712	70.8
> minimum wage	3,594	29.2
Total	**12,306**	**100.0**

Source: Primary Data, 2021

Table 2 shows parents' attitudes toward reproductive health education to their children. Around 29.5% of parents thought that reproductive health education at home was unnecessary, and 45% perceived it as taboo. About 41.5% perceived discussing

reproductive health issues with children as awkward, and 6.3% considered monitoring children's daily interactions with friends unimportant. Nearly 89% of parents limited their children's friendships with the opposite sex. Nevertheless, 13.7% of parents gave their children permission to start courtship at age 9-11, considering the child's maturity.

Table 2. Parent's Attitude in Delivering Reproductive Health Information

Variable	n	%
Feeling unnecessary	3,625	29.5
Feeling taboo	5,543	45.0
Feeling awkward	5,112	41.5
Feeling unimportant to monitor children's interactions with friends	771	6.3
Giving courtship permission	1,685	13.7

Source: Primary Data, 2021

In Table 3, most of the parents (89.9%) already knew their children's puberty status: menstruation for girls, a wet dream for boys, or pubescent phase. Almost a half (44.4%) of parents never provided information about reproductive health issues, but some parents gave reproductive health information, such as reproductive organs and their function (21.2%), menstruation and wet dream (27.6%), physical changes after puberty (43.5%), and pregnancy (7.4%). However, 72.7% of parents substituted names of genital organs while discussing reproductive health issues. Most of the parents encountered difficulties in bringing up reproductive health issues with their children (73.1%), but 84.9% of parents likely addressed reproductive health issues honestly when children asked. In addition, 6% of parents changed the topic, some scolded (1.1%), or gave a hazy explanations (1.3%) when responding to children's questions.

Table 3. Parent's Practice in Delivering Reproductive Health Information

Variable	n	%
Knowing children's puberty status	11,603	89.9
Reproductive health material that has been delivered:		
Reproductive organs and function	2,611	21.2
Menstruation/wet dream	3,391	27.6
Physical changes after puberty	5,347	43.5
Pregnancy	910	7.4
Never	5,461	44.4
Limiting children's relationships with opposite-sex friends	10,951	89.0
Using pseudo terms in naming genitals	8,943	72.7
Encounter difficulties to discuss	8,992	73.1
Parent's respond to children's questions:		
No respond /changing topic	736	6.0
Scolding children	136	1.1
Giving honest explanation	10,442	84.9
Giving hazy explanation	166	1.3
Others	826	6.7

Source: Primary Data, 2021

Table 4 reports that there is no relationship between parents' age and the provision of reproductive health education at home ($p = 0.618$). Sex, education level, occupation, family income, perception of the importance of reproductive health education and monitoring children's friendship, and courtship permission were significantly related to the provision of reproductive health information ($p = 0.000$). Good practice of productive health discussion is slightly more common in female/mothers than in male/fathers. The higher of education level, the better practice in providing reproductive health information. On average, unemployed parents provided reproductive health information slightly better than working parents. Parents who had family income above the regional minimum wage had good practice of providing reproductive health information. Those who perceived reproductive health education as necessary and normally provided reproductive health education by monitoring children's friendships and restricting courtship for their children.

Table 4. Association between Parent's Characteristic and Attitude toward Practice in Delivering Reproductive Health Information

Variable	Practice						
	Bad		Good		Total		p-value
	n= 6,011	%	n= 6,295	%	n= 12,306	%	
Age							
Adolescent	3	60.0	2	40.0	5	0	0.618
Adult	4,765	49.0	4,952	51.0	9,717	79.0	
Elderly	1,243	48.1	1,341	51.9	2,584	21.0	
Sex							
Male (father)	2,324	54.6	1,936	45.4	4,260	34.6	0.000
Female (mother)	3,687	45.8	4,359	54.2	8,046	65.4	
Education							
No education	61	61.6	38	38.4	99	0.8	0.000
Elementary school	664	55.9	523	44.1	1,187	9.6	
Junior school	1,109	56.5	855	43.5	1,964	16.0	
High school	3,291	50.6	3,215	49.4	6,506	52.9	
Diploma	367	36.3	645	63.7	1,012	8.2	
Undergraduate	480	34.0	930	66.0	1,410	11.5	
Postgraduate	39	30.5	89	69.5	128	1.0	
Occupation							
Unemployment	1,727	47.1	1,937	52.9	3,664	29.8	0.000
Civil servant/ Police/Army/Public employees	172	33.9	336	66.1	508	4.1	
Private employees	1,496	49.7	1,515	50.3	3,011	24.5	
Entrepreneur	1,031	49.2	1,063	50.8	2,094	17.0	
Farmer	25	71.4	10	28.6	35	0.3	
Fisherman	3	37.5	5	62.5	8	0.1	
Labor/maid	912	56.6	698	43.4	1,610	13.1	
Other	645	46.9	731	53.1	1,376	11.2	
Family income							
< minimum wage	4,568	52.4	4,144	47.6	8,712	70.8	0.000
> minimum wage	1,443	40.2	2,151	59.8	3,594	29.2	
Feeling unnecessary							
Agree	2,384	65.8	1,241	34.2	3,625	29.5	0.000
Disagree	3,627	41.8	5,054	58.2	8,681	70.5	
Feeling taboo							
Agree	3,596	64.9	1,947	35.1	5,543	45.0	0.000
Disagree	2,415	35.7	4,348	64.3	6,763	55.0	
Feeling awkward							
Agree	3,374	66.0	1,738	34.0	5,112	41.5	0.000
Disagree	2,637	36.7	4,557	63.3	7,194	58.5	
Feeling unimportant to monitor children's interactions with friends							
Agree	441	57.2	330	42.8	771	6.3	0.000
Disagree	5,570	48.3	5,965	51.7	11,535	93.7	
Giving courtship permission	983	58.3	702	41.7	1,685	13.7	0.000
Agree	5,028	47.3	5,593	52.7	10,621	86.3	
Disagree							

Source: Primary Data, 2021

Parents who perceived reproductive health education at home as unnecessary (OR 1.512), taboo (OR 1.898), awkward (OR 1.983), and those who gave courtship permission (OR 1.323) could be risk factors against reproductive health education at the family level (see Table 5).

Table 5. Result of Multivariate Analysis on Parent's Characteristic and Attitude toward Parent's Practice in Delivering Reproductive Health Information

Variable	β	SE	Wald	df	Sig	Exp (β)	95% CI	
							Lower	Upper
Feeling unnecessary	0.413	0.047	76.998	1	0.000	1.512	1.378	1.658
Feeling taboo	0.641	0.048	176.525	1	0.000	1.898	1.727	2.086
Feeling awkward	0.685	0.048	202.942	1	0.000	1.983	1.805	2.179
Feeling unimportant to monitor children's interactions with friends	0.080	0.081	0.978	1	0.323	1.083	0.925	1.269
Giving courtship permission	0.280	0.057	24.237	1	0.000	1.323	1.183	1.478

Note: β= Beta Coefficient; SE= Standard Error; df= Degree of Freedom; Sig.=Significance; Exp (β)= Beta Exponential; CI= Confidence Interval

Source: Primary Data, 2021

Discussion

Most of the respondents were in adulthood, productive age crucial for improving cognitive and social abilities. It means that age has an influence on the level of knowledge. The older a person is, the more mature he/she is in thinking and acting towards problems.[19] This study reported no relationship between age and parental education about reproductive health, but adolescent parents aged <26 years had a worse attitudes towards reproductive health education at home than older parents (adult and elderly). Besides influencing a cognitive perspective, age is also related to beliefs. Mature individuals will be trusted more than immature ones. It also affects comprehension and mindsets. As people get older, their mindsets and knowledge will also develop. There is no report about

a decline in intellectual ability, problem solving, and verbal ability at this age.[20] That means that parents at a productive age should be able to become good health communicators for their children.

This study involved female participants/mothers more than male ones/fathers. Normally, in Javanese ethnic groups, mothers are responsible for household and child affairs. The majority of Javanese women also encounter a double burdens to take care of family and raise money for family living. One-third of the parents were unemployed, and most of the parents had family income under the regional minimum wage. Living in a patriarchal culture causes women not to have an equal opportunity to obtain better education and income than men.[21] Men are the breadwinners for the family, while women have to focus more on household chores and childbearing. As a result, mothers have a greater responsibility for their child's reproductive health issues compared to fathers. In the Javanese tradition, mothers are responsible to monitor their children's growth such as their weight and height only. While children's understanding of and self-efficacy in reproductive health tend to be neglected. Prosperous parents tend to provide health information better than less prosperous parents due to the sufficiency of family time.

More than half of the parents in this study had graduated from high school, neither low nor high education levels. Education level is an important factor in honing skills to create educated humans who are expected to meet educational goals. Education makes a major contribution to human interaction in the environment. Skills and knowledge acquired at school help advocate communication. Community education affects perceptions and conceptual abilities in delivering and receiving messages/information. It will also affect the arrangement of thoughts and feelings about responses or feedback

given to a communicator or communicant.[22] People with higher education may communicate better in terms of content and attitudes. Human behavior as the result of learning reflects changes due to environmental influences.[23] Therefore, this study reported that parents with higher-level education provide better reproductive health education to their children at home.

Most parents knew the puberty status of their children and limited children's relationships with opposite-sex friends. There were 13.7% of mothers who gave permission for courtship at an early age because it was considered normal, and 6.3% thought monitoring children's friendships was unnecessary. Monitoring, one of the parental roles, could be done by checking children's activities and maintaining positive activities. Children who lack parental monitoring may feel and act more freely as their parents do not give well-defined rules. Several previous studies have also proved that the lack of parental monitoring results in accessing pornography and risky sexual behavior among their children.[12,24,25] Parents who do not supervise and control children tend to make children more daring to violate social norms. Parents play a role in controlling, educating, reminding, and advising children they have indications of risky behavior.

Monitoring children's activities should go by checking children's media use and building good bonding and communication between parents and children. Most of the parents felt the need to convey reproductive health information to their children, but they faced difficulties in starting the discussions to considering it taboo or awkward. This is in accordance with other research which states that parents feel embarrassed and unconfident when discussing reproductive health issues.[26,27] Most parents perceive reproductive health as an adult affair, and privacy, and consider it taboo.[28] In fact, many parents refused to take part in this study immediately after knowing the research topic. As

a result, children will look for reproductive health information themselves without parental control and thus may have misleading information or even sexual intercourse.

Previous research has found that parents mostly did not receive reproductive education when they were young. Hence, parents step back from reproductive health education, and children might be curious to experiment with reproduction.[26] Children's questions about reproductive health are often not answered properly by parents. Some parents may change the topic, give no response, or even scold the child for asking about that topic. This kind of response not only makes children misinterpret, but also stimulates children to seek information from other sources that might be not valid.

Almost half of the parents never provided reproductive health education to their children. As many as 84.9% avoided providing health information honestly to their children, but 72.7% of parents used pseudo terms when referring to genitals. In Javanese terms, male genitalia (penis) is named *titit* or *manuk* (bird). Word substitution is an attempt to translate taboo terms with other words or phrases.[29] Sometimes, this strategy does not enable children to the real concept of the reproductive organ, but they only grasp a similar understanding of the content.[30] As a result, children likely avoid the topic when discussing reproductive health with parents.

Reproductive health education should be addressed at an early age to reduce adolescent pregnancies. Some studies indicate that starting reproductive health education at an early age helps parents talk to children.[27,31,32] Through educational supplies that are carried out as early as possible, it can prevent adolescents from falling into the massive health risk behaviors encountered as teenagers. A conversation about reproductive health has a positive impact to avoid adolescent pregnancies.[33] Poor parental communication and lack of skills and confidence are linked to poor reproductive health among

adolescents. The more educated the parents are, the easier they discuss reproductive health issues with their children. Parents should be able to follow the development of their children by assessing children' needs. As the closest person, parents should always try to improve communication skills and learning information on adolescent reproductive health so that they can provide valid information to their children. Thus, parents will be children' close friend who can be trusted by their children in finding correct reproductive health information.

Strenghts and Limitations

Some limitations in this study have to be acknowledged concerning the fact that data were collected by online. This causes the researcher to be unable to know the real condition of the respondent when answering the survey. Beside, to participate in this online survey, respondents relied heavily on the availability of internet access. We suggest for further research to investigate parents' communication skill and exploring the obstacles about discussing reproductive health matter with children, by in-depth and face-to-face qualitative research.

Many studies has been reported about parents' communication skill about discussing reproductive health information to their teenagers. Our study revealed the parents perspective in delivering reproductive health information to their children aged 9-11 years old, which has not been explored in previous studies yet. Our study also involves a large number of samples so that it can gather deeper information and more accurate data.

Conclusion

Most parents believe that reproductive health information is important for their children, but they find difficult to facilitate their children with this topic due to taboo and awkward feelings. Parents tend to avoid direct talks about reproductive health by replacing the original terms with other pseudo terms to reduce taboo talks. Parents who allow their children to have courtship should equip them with adequate health information to avoid

risky health behavior. The ministry of health and family welfare should empower parents to bring open discussion about reproductive health issues with their children. Hence, children will have trustworthy sources of information in the family circle.

Abbreviations

GSHS: Global School-based Health Survey; IDHS: Indonesia Demographic and Health Survey; COVID-19: Corona Virus Disease 2019.

Ethics Approval and Consent to Participate

The study was approved by the Ethics Committee of Faculty of Public Health, Universitas Diponegoro (Approval ID: 158/EA/KEPK-FKM/2021).

Competing Interest

Author declares that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

Availability of Data and Materials

The data that support the findings of this study are available upon reasonable request from the corresponding author. The data are not publicly available as it contains information that could compromise the privacy of research participants.

Authors Contribution

BW and RI conceived the research concept. RI conducted methodology, data analysis, writing review and editing manuscript. NH and AK performed data collection, and writing original draft. All authors discussed the final result and contributed to the final manuscript.

Acknowledgments

The authors would like to thank the respondent and schools who participated in this study. We would also thank all colleagues and students who provided help during the process of making this study.

References

1. Ajayi AI, Odunga SA, Oduor C, Ouedraogo R, Ushie BA, Wado YD. "I was tricked": understanding reasons for unintended pregnancy among sexually active adolescent girls. Reprod Health. 2021;18(19). Available from https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-021-01078-y
2. Bearak J, Popinchalk A, Alkema L, Sedgh G. Global, Regional, and Subregional Trends in Unintended Pregnancy and Its Outcomes from 1990 to 2014: Estimates from a Bayesian Hierarchical Model. Lancet Glob Heal. 2018;6(4):e380–9. Available from https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(18)30029-9/fulltext
3. Ganatra B, Gerdts C, Rossier C, Ronald B, Jr J, Tunçalp Ö, et al. Global, Regional, and Subregional Classification of Abortions by Safety, 2010–14: Estimates from a Bayesian Hierarchical Model. Lancet. 2017;390(November 25):2372–81. Available from https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31794-4/fulltext
4. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The Incidence of Abortion and Unintended Pregnancy in India, 2015. Lancet Glob Heal. 2018;6(1):111–20. Available from https://pubmed.ncbi.nlm.nih.gov/29241602/
5. Ocviyanti D, Dorothea M. Aborsi di Indonesia. J Indones Med Assoc. 2018;68(6):213–5. Available from https://mki-ojs.idionline.org/jurnal/article/view/56

6. Kementerian Kesehatan Republik Indonesia. Perilaku Berisiko Kesehatan pada Pelajar SMP dan SMA di Indonesia [Internet]. 2016. Available from: https://www.who.int/ncds/surveillance/gshs/GSHS_2015_Indonesia_Report_Bahasa.pdf?ua=1
7. Kementerian Kesehatan Republik Indonesia. Situasi Kesehatan Reproduksi Remaja [Internet]. Jakarta; 2015. Available from: http://www.depkes.go.id/download.php?file=download/pusdatin/infodatin/infodatin reproduksi remaja-ed.pdf
8. Badan Kependudukan dan Keluarga Berencana Nasional. Survei Demografi dan Kesehatan Indonesia 2017: Buku Remaja [Internet]. Jakarta; 2018. Available from: https://archive.org/details/LaporanSDKI2017Remaja
9. Saksono A. Tingginya Kehamilan Remaja Tuntut PKBI Jateng Susun Program Kerja 2015-2018 [Internet]. 2019 [cited 2019 Sep 24]. Available from: https://pkbijateng.or.id/tingginya-kehamilan-remaja-tuntut-pkbi-jateng-susun-program-kerja-2015- 2018/
10. Kementerian Kesehatan Republik Indonesia. Hasil Utama Riskesdas 2018. Jakarta; 2018. Available from https://www.litbang.kemkes.go.id/hasil-utama-riskesdas-2018/
11. Wahab A, Mada UG, Wilopo S, Mada UG, Hakimi M, Mada UG. Declining age at menarche in Indonesia: a systematic review and meta-analysis. Int J Adolesc Med Health. 2018;(September):1–9. Available from https://pubmed.ncbi.nlm.nih.gov/30256760
12. Gayatri S, Shaluhiyah Z, Indraswari R. Faktor-faktor yang Berhubungan dengan Frekuensi Akses Pornografi dan Dampaknya terhadap Perilaku Seksual pada Remaja di Kota Bogor. J Kesehat Masy. 2020;8(3):410–9. Available from https://ejournal3.undip.ac.id/index.php/jkm/article/view/26456
13. Wulandari S. Perilaku Seksual Pranikah Berisiko terhadap Kehamilan Tidak Diinginkan pada Remaja SMKN Tandun Kabupaten Rokan Hulu. J Matern Neonatal. 2016;2(2):74–84. Available from https://e-journal.upp.ac.id/index.php/akbd/article/view/1078
14. Wanufika I, Ismail D. Komunikasi Orang Tua tentang Seksualitas terhadap Perilaku Seksual Pranikah Remaja. Ber Kedokt Masy. 2017;33(10):495–500.

Available from https://jurnal.ugm.ac.id/bkm/article/view/26079

15. Badan Kependudukan dan Keluarga Berencana Nasional. Survei Demografi dan Kesehatan Indonesia 2017: Kesehatan Reproduksi Remaja (Indikator Utama) [Internet]. Jakarta: BKKBN; 2018. 23 p. Available from: https://cis.bkkbn.go.id/latbang/?wpdmpro=indikator-utama-key-indicator-report-kespro-remaja-sdki-2017_idhs-2017_english-version
16. Rusady IK, Shaluhiyah Z, Husodo BT. Analisis Kebutuhan Pendidikan Kesehatan Reproduksi pada Siswa SMP di Wilayah Kecamatan Pedurungan Semarang. J Kesehat Masy. 2017;5(5):1010–20. Available from https://ejournal3.undip.ac.id/index.php/jkm/article/view/19229/18256
17. Motlagh M, Rejaei L, Jonidi A. Priorities in Health Education Needs of Youth Based on Needs Assessment and Stakeholder Involvement, in Areas Covered by the Health Departments of Iran University of Medical Sciences. J Educ Community Heal. 2016;3(1):51–7. Available from https://www.sid.ir/en/Journal/ViewPaper.aspx?ID=541331
18. Rob U, Ghafur T, Bhuiya I, Talukder MN. Reproductive and Sexual Health Education for Adolescents in Bangladesh: Parents' View and Opinion. Int Q Community Health Educ. 2006;25(4):351–65. Available from https://pubmed.ncbi.nlm.nih.gov/17686707/
19. Deary IJ, Corlet J, Gow AJ, Harris SE. Age-associated cognitive decline. Br Med Bull. 2009;92(1):135–52. Available from https://pubmed.ncbi.nlm.nih.gov/19776035/
20. Correia R, Barroso J, Nieto A. Age-Related Cognitive Changes: The Importance of Modulating Factors. J Geriatr Med Gerontol. 2018;4(2):1–10. Available from https://clinmedjournals.org/articles/jgmg/journal-of-geriatric-medicine-and-gerontology-jgmg-4-048.php?jid=jgmg
21. Sigiro AN. Care Economy and the Burden of Housewives' Work in Indonesia. J Peremp. 2018;23(4):249. Available from http://indonesianfeministjournal.org/index.php/IFJ/article/view/278
22. Navickiene V, Sederevičiūtė-Pačiauskienė Ž, Valantinaitė I, Zilinskaite V. The relationship between communication and education through the creative personality of the teacher. Creat Stud. 2019;12(1):49–60. Available from

https://journals.vilniustech.lt/index.php/CS/article/view/6472

23. Obaki SO. Impact of Classroom Environment on Children's Social Behavior. Int J Educ Pract. 2017;5(1):1–7. Available from https://eric.ed.gov/?id=EJ1209957

24. Dávila SPE, Champion J, Monsiváis MG, Tovar M, Arias MLF. Mexican Adolescents' Self-Reports of Parental Monitoring and Sexual Communication for Prevention of Sexual Risk Behavior. J Pediatr Nurs. 2017;35:83–89. Available from https://pubmed.ncbi.nlm.nih.gov/28728775/

25. Handayani S. Faktor-faktor yang Mempengaruhi Kejadian Kehamilan Tidak Diinginkan pada Remaja di Kelurahan Balecatur Gampingan Sleman Yogyakarta. J Kesehat Samudra Ilmu. 2016;7(1). Available from http://ejournal.stikes-yogyakarta.ac.id/index.php/jksi/article/view/89

26. Shin H, Lee JM, Min JY. Sexual Knowledge, Sexual Attitudes, and Perceptions and Actualities of Sex Education among Elementary School Parents. Child Heal Nurs Res. 2019;25(3):312–23. Available from https://www.e-chnr.org/journal/view.php?doi=10.4094/chnr.2019.25.3.312

27. Robinson KH, Smith E, Davies C. Responsibilities, tensions and ways forward: parents' perspectives on children's sexuality education. Sex Educ. 2017;17(3):333–47. Available from https://www.tandfonline.com/doi/full/10.1080/14681811.2017.1301904

28. Runcan R, Bahnaru A. Sex Education Revisited: School-based Sex Education. Analele Univ din Craiova. 2019;18(1):1–7. Available from https://www.researchgate.net/publication/333895000

29. Robati N, Zahra F, Zand F. Translation of Taboos: The Absolutely True Diary of a Part Time Indian. Int J Appl Linguist English Lit. 2018;7(3):35–40. Available from http://www.journals.aiac.org.au/index.php/IJALEL/article/view/4246

30. Khoshsaligheh M. A Socio-cultural Study of Taboo Rendition in Persian Fansubbing: An Issue of Ressistance. Lang Intercult Commun. 2018;18(6):663–80. Available from https://www.tandfonline.com/doi/abs/10.1080/14708477.2017.1377211?journalCode=rmli20

31. Nambambi NM, Mufune P. What Is Talked About When Parents Discuss Sex with Children: Family Based Sex Education In Windhoek, Namibia. Afr J Reprod

Health. 2011;15(4):120–9. Available from https://pubmed.ncbi.nlm.nih.gov/22571114/

32. Bankole A, Biddlecom A, Guiella G, Singh S, Zulu E, Health AJR. Sexual Behavior , Knowledge and Information Sources of Very Young Adolescents in Four Sub-Saharan African Countries. 2007; Available fromhttps://www.ncbi.nlm.nih.gov/pmc/articles/PMC2367131/

33. Azira N, Abdullah FB, Muda SM, Zain NM. The role of parents in providing sexuality education to their children children. Makara J Heal Res. 2020;24(3):157–63. Available from https://scholarhub.ui.ac.id/mjhr/vol24/iss3/2/

Author response to Editors' Comment

No.	Editors' / reviewers' comment	Response to comment	Lines
1	Abstract: the method is too short	Sure. We've explained more detail.	18-20
2	Abstract: the result is descriptive	Sure. We've revised it.	20-21
3	Abstract: No need to inform recommendation	Sure. We've deleted it.	-
4	Method: make it detail	Sure.	83-95 97-115
5	Result: table 4, right total	Sure. We've revised it.	191-242
6	Discussion: Give opinion supported with refrences	Sure. We've added it.	309-313 326-330 339-352
7	Strength and limitations	Sure. We've added it.	354-366
8	Authors contribution	Sure. We've revised it.	391-395
9	References: no acronym, add URL	Sure. We've revised it.	401-530

The Perspective of Reproductive Health Education among Javanese Parents

Bagoes Widjanarko [1], Ratih Indraswari[1*], Aditya Kusumawati[1], Novia Handayani[1]

[1]Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia

** Corresponding Author: Ratih Indraswari, Health Promotion and Behavioral Science Department Faculty of Public Health Universitas Diponegoro, Jl. Prof Soedharto SH Tembalang Semarang 50275, Indonesia, E-mail: ratih.indraswari@gmail.com, Phone: +62-24-7460044*

Abstract

Adolescent is a common target population in reproductive health programs in Indonesia because information and experience are little considered in the middle phase of childhood. This study aimed to investigate perspectives of reproductive health education among Javanese parents of children aged 9-11 years old. A total of 12,306 parents in Semarang, Central Java, participated in this cross-sectional study. Most parents were mothers (65.4%), and 70.8% had low incomes. Around 29.5% of parents agreed that reproductive health education at home was unnecessary, while some perceived it taboo (45%), difficult (73.1%), and awkward (41.5%). Most parents (72.7%) used other terms to name the genitals, considering the politeness aspect. Results showed age (p = 0.618), parents' characteristics, and attitudes were related to the provision of reproductive health

Commented [KJ1]: Ensure that the abstract is no more than 200 words (including the keywords).

Sure.

Commented [KJ2]: Before explaining the aim, please describe the background first.

Sure.

education at home. The risk factors that influence the provision of reproductive health education at home were attitude toward feelings i.e., unnecessary (OR = 1.512), taboo (OR = 1.898), awkwardness (OR = 1.983), and giving courtship permission (OR = 1.323). Parents were not transparent in providing reproductive health information to their children. The ministry of health and family welfare should encourage parents to normalize reproductive health education for their children.

Keywords: Children, reproductive health education, parents

Commented [KJ3]: Check the author guidelines, please. The maximum of keywords is five.

Sure.

Introduction

Unwanted pregnancies among adolescents have become a health problem all over the world. Every year, approximately 16 million women aged 15-19 years and 2.5 million women under 16 years old in developing countries experience childbirth.[1] Additionally, the World Health Organization also stated that three million adolescent girls aged 15-19 years in Asian countries do an abortion each year.[2] In developing countries, the abortion rate has increased by around 11%.[3] The increased risk of abortion is influenced by the incidence of unwanted pregnancies.[4] On average, in Indonesia, 8% of abortions performed by adolescent girls aged less than 19 years are caused by unwanted pregnancy every year.[5]

Based on data from the 2015 Global School-based Health Survey (GSHS), 5.26% of junior and senior high school students in Indonesia have been in sexual intercourse, and only 13% of them used condoms.[6] This is in accordance with data from the Indonesian Ministry of Health which stated that the incidence of unwanted pregnancies in adolescents aged 15-19 years in Indonesia continues to increase. Data showed unwanted pregnancies increased from 1.97% in 2013[7] to 16.4% in 2017.[8] Pre-assessment by

Indonesian Planned Parenthood Association found that 40.6% of 64 adolescents with unwanted pregnancies in Central Java lived in urban areas. That means most of them were the residents of Semarang, the capital city of Central Java Province.[9]

Commented [KJ4]: Reference?

Sure.

According to the Indonesia Demographic and Health Survey (IDHS), the percentage of adolescents who had sexual intercourse for the first time between 15-19 years of age increased from 59% in 2012 to 74% in 2017.[10] The GSHS shows that 27.35% of junior high and high school students in Indonesia have been sexually active before they turn to 14 years old.[6] Meanwhile, 6% of adolescents reported having sexual intercourse when they were 11-14 years old, the average age at the beginning of puberty or the transition from childhood to adolescence.[8] In addition, the age of menarche in Indonesia has declined to 11 days younger per year.[11] This indicates that adolescents in Indonesia might have their first sexual intercourse at a younger age.

Sexual behavior is significantly related to access to pornography ($p = 0.0001$).[12] Access to magazines, books, pornographic films, and porno-action causes adolescents to have sexual intercourse at an early age (13-15 years).[13] A previous study reports that 60.6% of adolescents accessed pornography at least once per day mostly on their personal cellular phone (59.2%) at their home. In fact, 1.2% of adolescents are exposed to pornography from the age of 5-8 years, from their parent's cellular phone.[12] Parental supervision and communication with children affect adolescents to be at risk of sexual behavior.[14] As around 50% of parents did not monitor the activities of their children, and 63% provided free internet access without watching over their children's online activities.[12]

Low parental involvement and supervision are likely proven to affect adolescents to be at risk of having sexual behavior. The adolescent reproductive health indicator in the

2017 IDHS showed peers (57.5%) and mothers (45.2%) most likely have opportunities to address reproductive health issues with their adolescent daughters.[15] However, some parents refuse to talk about reproductive health because they are worried about its effects on their children's behavior. Parents feel that one day the child will understand the topic themselves from teachers at schooL.[16] A previous study states that even teachers feel awkward and embarrassed when they have to address reproductive health issues to students in class.[17] Against this backdrop of reproductive health education, this study aimed to describe the perspective of reproductive health education among Javanese parents of adolescents and to investigate the risk factors against parental monitoring on children's reproductive health.

Method

This study is a cross-sectional study conducted involving 12,306 parents of students in grades 4-6 of public elementary schools in Semarang City, Central Java, Indonesia. The students were in the middle phase of childhood and were aged 9-11 years old. Due to the COVID-19 pandemic in Indonesia, data were collected through self-administered questionnaires on Google form shared by the class teacher to their parents. Data entry and analysis were conducted using IBM SPSS Statistics ver. 20.0 software (IBM Corp., Armonk, NY, USA). The independent variables in this study were parents' characteristics (age, sex, education, occupation, and income) and parents' attitudes toward reproductive health education for children. The dependent variable was parents' practice in providing reproductive health education to their children. The data were analyzed univariately to obtain parents' perspectives of reproductive health education. Bivariate and multivariate analyses were also performed in this study to investigate

whether parents' characteristics and attitudes are correlated with the provision of reproductive health education at home and to identify risk factors against reproductive health education. This study was carried out in 2021 after approval from the Faculty of Public Health Universitas Diponegoro was obtained (ethics code: 158/EA/KEPK-FKM/2021).

Results

.....

There were 34.6% fathers and 65.4% mothers participating in this study (see Table 1). Around 79% of respondents were in adulthood (aged 26-45 years old), 52.9% graduated from senior high school, 29.8% were unemployed, and 70.8% had family income more than regional minimum wage (IDR 2,810,025).

Commented [KJ5]: Give a narration before the table but do not repeat the content of the table.

Sure.

Table 1. Respondent Characteristic

Characteristic	n	%
Age		
Adolescent	5	0
Adult	9,717	79.0
Elderly	2,584	21.0
Sex		
Male (father)	4,260	34.6
Female (mother)	8,046	65.4
Education		
No education	99	0.8
Elementary school	1,187	9.6
Junior school	1,964	16.0
High school	6,506	52.9
Diploma	1,012	8.2
Undergraduate	1,410	11.5
Postgraduate	128	1.0
Occupation		
Unemployed	3,664	29.8
Civil servant/Police/Army/Public employees	508	4.1
Private employees	3,011	24.5
Entrepreneur	2,094	17.0
Farmer	35	0.3

Fisherman	8	0.1
Labor/maid	1,610	13.1
Other	1,376	11.2
Family income		
< minimum wage	8,712	70.8
> minimum wage	3,594	29.2
Total	**12,306**	**100.0**

Source: Primary Data, 2021

Table 2 shows parents' attitudes toward reproductive health education to their children. Around 29.5% of parents thought that reproductive health education at home was unnecessary, and 45% perceived it as taboo. About 41.5% perceived discussing reproductive health issues with children as awkward, and 6.3% considered monitoring children's daily interactions with friends unimportant. Nearly 89% of parents limited their children's friendships with the opposite sex. Nevertheless, 13.7% of parents gave their children permission to start courtship at age 9-11, considering the child's maturity.

Table 2. Parent's Attitude in Delivering Reproductive Health Information

Variable	n	%
Feeling unnecessary	3,625	29.5
Feeling taboo	5,543	45.0
Feeling awkward	5,112	41.5
Feeling unimportant to monitor children's interactions with friends	771	6.3
Giving courtship permission	1,685	13.7

Source: Primary Data, 2021

In Table 3, most of the parents (89.9%) already knew their children's puberty status: menstruation for girls, a wet dream for boys, or pubescent phase. Almost a half (44.4%) of parents never provided information about reproductive health issues, but some parents gave reproductive health information, such as reproductive organs and their function (21.2%), menstruation and wet dream (27.6%), physical changes after puberty (43.5%),

and pregnancy (7.4%). However, 72.7% of parents substituted names of genital organs while discussing reproductive health issues. Most of the parents encountered difficulties in bringing up reproductive health issues with their children (73.1%), but 84.9% of parents likely addressed reproductive health issues honestly when children asked. In addition, 6% of parents changed the topic, some scolded (1.1%), or gave a hazy explanations (1.3%) when responding to children's questions.

Table 3. Parent's Practice in Delivering Reproductive Health Information

Variable	n	%
Knowing children's puberty status	11,603	89.9
Reproductive health material that has been delivered:		
Reproductive organs and function	2,611	21.2
Menstruation/wet dream	3,391	27.6
Physical changes after puberty	5,347	43.5
Pregnancy	910	7.4
Never	5,461	44.4
Limiting children's relationships with opposite-sex friends	10,951	89.0
Using pseudo terms in naming genitals	8,943	72.7
Encounter difficulties to discuss	8,992	73.1
Parent's respond to children's questions:		
No respond /changing topic	736	6.0
Scolding children	136	1.1
Giving honest explanation	10,442	84.9
Giving hazy explanation	166	1.3
Others	826	6.7

Source: Primary Data, 2021

Table 4 reports that there is no relationship between parents' age and the provision of reproductive health education at home ($p = 0.618$). Sex, education level, occupation, family income, perception of the importance of reproductive health education and monitoring children's friendship, and courtship permission were significantly related to the provision of reproductive health information ($p = 0.000$). Good practice of productive health discussion is slightly more common in female/mothers than in male/fathers. The

higher of education level, the better practice in providing reproductive health information. On average, unemployed parents provided reproductive health information slightly better than working parents. Parents who had family income above the regional minimum wage had good practice of providing reproductive health information. Those who perceived reproductive health education as necessary and normally provided reproductive health education by monitoring children's friendships and restricting courtship for their children.

Table 4. Association between Parent's Characteristic and Attitude toward Practice in Delivering Reproductive Health Information

Variable	Practice				P Value
	Bad		Good		
	n	%	n	%	
Age					
Adolescent	3	60.0	2	40.0	0.618
Adult	4,765	49.0	4,952	51.0	
Elderly	1,243	48.1	1,342	51.9	
Sex					
Male (father)	2,324	54.6	1,936	45.4	0.000
Female (mother)	3,687	45.8	4,359	54.2	
Education					
No education	61	61.6	38	38.4	0.000
Elementary school	664	55.9	523	44.1	
Junior school	1,109	56.5	855	43.5	
High school	3,291	50.6	3,215	49.4	
Diploma	367	36.3	645	63.7	
Undergraduate	480	34.0	930	66.0	
Postgraduate	39	30.5	89	69.5	
Occupation					
Unemployment	1,727	47.1	1,937	52.9	0.000
Civil servant/ Police/Army/Public employees	172	33.9	336	66.1	
Private employees	1,496	49.7	1,515	50.3	
Entrepreneur	1,031	49.2	1,063	50.8	
Farmer	25	71.4	10	28.6	
Fisherman	3	37.5	5	62.5	
Labor/maid	912	56.6	698	43.4	
Other	645	46.9	731	53.1	
Family income					

< minimum wage	4,568	52.4	4,144	47.6	0.000
> minimum wage	1,443	40.2	2,151	59.8	
Feeling unnecessary					
Agree	2,384	65.8	1,241	34.2	0.000
Disagree	3,627	41.8	5,054	58.2	
Feeling taboo					
Agree	3,596	64.9	1,947	35.1	0.000
Disagree	2,415	35.7	4,348	64.3	
Feeling awkward					
Agree	3,374	66.0	1,738	34.0	0.000
Disagree	2,637	36.7	4,557	63.3	
Feeling unimportant to monitor children's interactions with friends					
Agree	441	57.2	330	42.8	0.000
Disagree	5,570	48.3	5,965	51.7	
Giving courtship permission					
Agree	983	58.3	702	41.7	0.000
Disagree	5,028	47.3	5,593	52.7	

Source: Primary Data, 2021

Parents who perceived reproductive health education at home as unnecessary (OR 1.512), taboo (OR 1.898), awkward (OR 1.983), and those who gave courtship permission (OR 1.323) could be risk factors against reproductive health education at the family level (see Table 5).

Table 5. Result of Multivariate Analysis on Parent's Characteristic and Attitude toward Parent's Practice in Delivering Reproductive Health Information

Variable	β	SE	Wald	df	Sig	Exp (β)	95% CI	
							Lower	Upper
Feeling unnecessary	0.413	0.047	76.998	1	0.000	1.512	1.378	1.658
Feeling taboo	0.641	0.048	176.525	1	0.000	1.898	1.727	2.086
Feeling awkward	0.685	0.048	202.942	1	0.000	1.983	1.805	2.179
Feeling unimportant to monitor children's interactions with friends	0.080	0.081	0.978	1	0.323	1.083	0.925	1.269
Giving courtship permission	0.280	0.057	24.237	1	0.000	1.323	1.183	1.478

….

Commented [KJ6]: Notes: B=……; SE= ……; dst…

Sure.

Note: β= Beta Coefficient; SE= Standard Error; df= Degree of Freedom; Sig.=Significance; Exp (β)= Beta Exponential; CI= Confidence Interval
Source: Primary Data, 2021

Discussion

Most of the respondents were in adulthood, productive age crucial for improving cognitive and social abilities. It means that age has an influence on the level of knowledge. The older a person is, the more mature he/she is in thinking and acting towards problems.[18] This study reported no relationship between age and parental education about reproductive health, but adolescent parents aged <26 years had a worse attitudes towards reproductive health education at home than older parents (adult and elderly). Besides influencing a cognitive perspective, age is also related to beliefs. Mature individuals will be trusted more than immature ones. It also affects comprehension and mindsets. As people get older, their mindsets and knowledge will also develop. There is no report about a decline in intellectual ability, problem solving, and verbal ability at this age.[19] That means that parents at a productive age should be able to become good health communicators for their children.

This study involved female participants/mothers more than male ones/fathers. Normally, in Javanese ethnic groups, mothers are responsible for household and child affairs. The majority of Javanese women also encounter a double burdens to take care of family and raise money for family living. One-third of the parents were unemployed, and most of the parents had family income under the regional minimum wage. Living in a patriarchal culture causes women not to have an equal opportunity to obtain better education and income than men.[20] Men are the breadwinners for the family, while women have to focus more on household chores and childbearing. As a result, mothers have a greater responsibility for their child's reproductive health issues compared to fathers. In the Javanese tradition, mothers are responsible to monitor their children's

growth such as their weight and height only. While children's understanding of and self-efficacy in reproductive health tend to be neglected. Prosperous parents tend to provide health information better than less prosperous parents due to the sufficiency of family time.

More than half of the parents in this study had graduated from high school, neither low nor high education levels. Education level is an important factor in honing skills to create educated humans who are expected to meet educational goals. Education makes a major contribution to human interaction in the environment. Skills and knowledge acquired at school help advocate communication. Community education affects perceptions and conceptual abilities in delivering and receiving messages/information. It will also affect the arrangement of thoughts and feelings about responses or feedback given to a communicator or communicant.[21] People with higher education may communicate better in terms of content and attitudes. Human behavior as the result of learning reflects changes due to environmental influences.[22] Therefore, this study reported that parents with higher-level education provide better reproductive health education to their children at home.

Most parents knew the puberty status of their children and limited children's relationships with opposite-sex friends. There were 13.7% of mothers who gave permission for courtship at an early age because it was considered normal, and 6.3% thought monitoring children's friendships was unnecessary. Monitoring, one of the parental roles, could be done by checking children's activities and maintaining positive activities. Children who lack parental monitoring may feel and act more freely as their parents do not give well-defined rules. Several previous studies have also proved that the lack of parental monitoring results in accessing pornography and risky sexual behavior

among their children.[12,23,24]

Monitoring children's activities should go by checking children's media use and building good bonding and communication between parents and children. Most of the parents felt the need to convey reproductive health information to their children, but they faced difficulties in starting the discussions to considering it taboo or awkward. This is in accordance with other research which states that parents feel embarrassed and unconfident when discussing reproductive health issues.[25,26] Most parents perceive reproductive health as an adult affair, and privacy, and consider it taboo.[27] In fact, many parents refused to take part in this study immediately after knowing the research topic. As a result, children will look for reproductive health information themselves without parental control and thus may have misleading information or even sexual intercourse.

Previous research has found that parents mostly did not receive reproductive education when they were young. Hence, parents step back from reproductive health education, and children might be curious to experiment with reproduction.[25] Children's questions about reproductive health are often not answered properly by parents. Some parents may change the topic, give no response, or even scold the child for asking about that topic.

Almost half of the parents never provided reproductive health education to their children. As many as 84.9% avoided providing health information honestly to their children, but 72.7% of parents used pseudo terms when referring to genitals. In Javanese terms, male genitalia (penis) is named *titit* or *manuk* (bird). Word substitution is an attempt to translate taboo terms with other words or phrases.[28] Sometimes, this strategy does not enable children to the real concept of the reproductive organ, but they only grasp a similar understanding of the content.[29] As a result, children likely avoid the topic when

discussing reproductive health with parents.

Moreover, parents who allowed courtship likely had a poor practice of reproductive health education. Children do not obtain important information from their parents which may help them to develop life skills. Hence, children may be misguided and access the internet for pornography content.

Some studies indicate that starting reproductive health education at an early age helps parents talk to children.[26,30] Reproductive health education should be addressed at an early age to reduce adolescent pregnancies. Poor parental communication and lack of skills and confidence are linked to poor reproductive health among adolescents. The more educated the parents are, the easier they discuss reproductive health issues with their children. A conversation about reproductive health has a positive impact to avoid adolescent pregnancies.[31]

Conclusion

Most parents believe that reproductive health information is important for their children, but they find difficult to facilitate their children with this topic due to taboo and awkward feelings. Parents tend to avoid direct talks about reproductive health by replacing the original terms with other pseudo terms to reduce taboo talks. Parents who allow their children to have courtship should equip them with adequate health information to avoid risky health behavior. The ministry of health and family welfare should empower parents to bring open discussion about reproductive health issues with their children. Hence, children will have trustworthy sources of information in the family circle.

Abbreviations

Commented [A7]: We have adjusted these things :
- abbreviations
- ethics approval and consent to participate
- competing interest
- availibility of data and materials
- authors' contribution
- acknowledgment

GSHS: Global School-based Health Survey; IDHS: Indonesia Demographic and Health Survey; COVID-19: Corona Virus Disease 2019.

Ethics Approval and Consent to Participate

The study was approved by the Ethics Committee of Faculty of Public Health, Universitas Diponegoro (Approval ID: 158/EA/KEPK-FKM/2021).

Competing Interest

Author declares that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

Availability of Data and Materials

The data that support the findings of this study are available upon reasonable request from the corresponding author. The data are not publicly available as it contains information that could compromise the privacy of research participants.

Authors Contribution

BW: conceptualization; RI: methodology, data analysis, writing - review and editing manuscript; NH and AK: data collecting, and writing - original draft. All authors discussed the final result and contributed to the final manuscript.

Commented [KJ8]: Check how to write it in the author's guidelines

Sure.

Acknowledgments

The authors would like to thank the respondent and schools who participated in this study. We would also thank all colleagues and students who provided help during the process of making this study.

References

1. Ajayi AI, Odunga SA, Oduor C, Ouedraogo R, Ushie BA, Wado YD. “I was tricked”: understanding reasons for unintended pregnancy among sexually active adolescent girls. Reprod Health. 2021;18(19).
2. Bearak J, Popinchalk A, Alkema L, Sedgh G. Global, Regional, and Subregional Trends in Unintended Pregnancy and Its Outcomes from 1990 to 2014: Estimates from a Bayesian Hierarchical Model. Lancet Glob Heal. 2018;6(4):e380–9.
3. Ganatra B, Gerdts C, Rossier C, Ronald B, Jr J, Tunçalp Ö, et al. Global, Regional, and Subregional Classification of Abortions by Safety, 2010–14: Estimates from a Bayesian Hierarchical Model. Lancet. 2017;390(November 25):2372–81.
4. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The Incidence of Abortion and Unintended Pregnancy in India, 2015. Lancet Glob Heal. 2018;6(1):111–20.
5. Ocviyanti D, Dorothea M. Aborsi di Indonesia. J Indones Med Assoc. 2018;68(6):213–5.
6. Kemenkes RI. Perilaku Berisiko Kesehatan pada Pelajar SMP dan SMA di Indonesia [Internet]. 2016. Available from: https://www.who.int/ncds/surveillance/gshs/GSHS_2015_Indonesia_Report_Bahasa.pdf?ua=1
7. Kementerian Kesehatan Republik Indonesia. Situasi Kesehatan Reproduksi Remaja [Internet]. Jakarta; 2015. Available from: http://www.depkes.go.id/download.php?file=download/pusdatin/infodatin/infodatin reproduksi remaja-ed.pdf
8. Badan Kependudukan dan Keluarga Berencana Nasional. Survei Demografi dan Kesehatan Indonesia 2017: Buku Remaja [Internet]. Jakarta; 2018. Available from: https://archive.org/details/LaporanSDKI2017Remaja
9. Saksono A. Tingginya Kehamilan Remaja Tuntut PKBI Jateng Susun Program Kerja 2015-2018 [Internet]. 2019 [cited 2019 Sep 24]. Available from: https://pkbijateng.or.id/tingginya-kehamilan-remaja-tuntut-pkbi-jateng-susun-program-kerja-2015- 2018/
10. Kementerian Kesehatan RI. Hasil Utama Riskesdas 2018. Jakarta; 2018.

11. Wahab A, Mada UG, Wilopo S, Mada UG, Hakimi M, Mada UG. Declining age at menarche in Indonesia: a systematic review and meta-analysis. Int J Adolesc Med Health. 2018;(September):1–9.
12. Gayatri S, Shaluhiyah Z, Indraswari R. Faktor-faktor yang Berhubungan dengan Frekuensi Akses Pornografi dan Dampaknya terhadap Perilaku Seksual pada Remaja di Kota Bogor. J Kesehat Masy. 2020;8(3):410–9.
13. Wulandari S. Perilaku Seksual Pranikah Berisiko terhadap Kehamilan Tidak Diinginkan pada Remaja SMKN Tandun Kabupaten Rokan Hulu. J Matern Neonatal. 2016;2(2):74–84.
14. Wanufika I, Ismail D. Komunikasi Orang Tua tentang Seksualitas terhadap Perilaku Seksual Pranikah Remaja. Ber Kedokt Masy. 2017;33(10):495–500.
15. BKKBN. Survei Demografi dan Kesehatan Indonesia 2017: Kesehatan Reproduksi Remaja (Indikator Utama) [Internet]. Jakarta: BKKBN; 2018. 23 p. Available from: https://cis.bkkbn.go.id/latbang/?wpdmpro=indikator-utama-key-indicator-report-kespro-remaja-sdki-2017_idhs-2017_english-version
16. Rusady IK, Shaluhiyah Z, Husodo BT. Analisis Kebutuhan Pendidikan Kesehatan Reproduksi pada Siswa SMP di Wilayah Kecamatan Pedurungan Semarang. J Kesehat Masy. 2017;5(5):1010–20.
17. Motlagh M, Rejaei L, Jonidi A. Priorities in Health Education Needs of Youth Based on Needs Assessment and Stakeholder Involvement, in Areas Covered by the Health Departments of Iran University of Medical Sciences. J Educ Community Heal. 2016;3(1):51–7.
18. Deary IJ, Corlet J, Gow AJ, Harris SE. Age-associated cognitive decline. Br Med Bull. 2009;92(1):135–52.
19. Correia R, Barroso J, Nieto A. Age-Related Cognitive Changes: The Importance of Modulating Factors. J Geriatr Med Gerontol. 2018;4(2):1–10.
20. Sigiro AN. Care Economy and the Burden of Housewives' Work in Indonesia. J Peremp. 2018;23(4):249.
21. Navickiene V, Sederevičiūtė-Pačiauskienė Ž, Valantinaitė I, Zilinskaite V. The relationship between communication and education through the creative personality of the teacher. Creat Stud. 2019;12(1):49–60.

22. Obaki SO. Impact of Classroom Environment on Children's Social Behavior. Int J Educ Pract. 2017;5(1):1–7.
23. Dávila SPE, Champion J, Monsiváis MG, Tovar M, Arias MLF. Mexican Adolescents' Self-Reports of Parental Monitoring and Sexual Communication for Prevention of Sexual Risk Behavior. J Pediatr Nurs. 2017;35:83–89.
24. Handayani S. Faktor-faktor yang Mempengaruhi Kejadian Kehamilan Tidak Diinginkan pada Remaja di Kelurahan Balecatur Gampingan Sleman Yogyakarta. J Kesehat Samudra Ilmu. 2016;7(1).
25. Shin H, Lee JM, Min JY. Sexual Knowledge, Sexual Attitudes, and Perceptions and Actualities of Sex Education among Elementary School Parents. Child Heal Nurs Res. 2019;25(3):312–23.
26. Robinson KH, Smith E, Davies C. Responsibilities, tensions and ways forward: parents' perspectives on children's sexuality education. Sex Educ. 2017;17(3):333–47.
27. Runcan R, Bahnaru A. Sex Education Revisited: School-based Sex Education. Analele Univ din Craiova. 2019;18(1):1–7.
28. Robati N, Zahra F, Zand F. Translation of Taboos: The Absolutely True Diary of a Part Time Indian. Int J Appl Linguist English Lit. 2018;7(3):35–40.
29. Khoshsaligheh M. A Socio-cultural Study of Taboo Rendition in Persian Fansubbing: An Issue of Ressistance. Lang Intercult Commun. 2018;18(6):663–80.
30. Nambambi NM, Mufune P. What Is Talked About When Parents Discuss Sex with Children: Family Based Sex Education In Windhoek, Namibia. Afr J Reprod Health. 2011;15(4):120–9.
31. Azira N, Abdullah FB, Muda SM, Zain NM. The role of parents in providing sexuality education to their children children. Makara J Heal Res. 2020;24(3):157–63.