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# Strengthening Adolescent Reproductive Health in The Information Age

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**ABSTRACT** Adolescents are curious, adventurous and challenging, and are more likely to accept the risks of their actions without detailed consideration, which is typical of adolescence (Soetjiningsih, 2010). The conditions of globalization make the condition of adolescents even worse, so supervision and guidance are needed for adolescents. In the New Normal period, the Teaching and Learning Process activities in schools are 50% held offline, santri and santriwati who go to school are allowed to bring smartphones, to access school assignments, after completing the assignment, it is used to socialize with more capacity because in the cottage they are not allowed to bring smartphones or socialize. The purpose of this service is so that adolescents understand more about reproductive health and utilize smartphones to access reproductive health after completing school assignments. The method used in community service activities Strengthening Adolescent Reproductive Health in the Information Age, carried out by providing counseling on adolescent development, reproductive health and information media. The results of the pre-test on reproductive health obtained a sufficient knowledge value of 13 people (52%) while the value was less than 12 people (48%), adolescents' knowledge of information media, obtained sufficient knowledge as many as 11 people (44%) and less knowledge as many as 5 people (20%). After being given counseling, the results of the post test of knowledge about adolescent reproductive health with good grades were 18 people (72%) and those with less knowledge were 2 people (8%) and 1 week after being given Leaflet, the knowledge of adolescents about reproductive health was 100% good. The knowledge of adolescents about information media is good to 21 people (84%) and sufficient knowledge is 4 people (16%). The cottage manager has provided time to access related to adolescent reproductive health. There is an increase in adolescent knowledge about adolescent reproductive health and utilization of information media.

**INDEX TERMS** Strengthening, Reproductive Health, Adolescents, Informatics

## I. INTRODUCTION

People's interactions have changed through information and communication media, disseminating information quickly and easily. Cyberspace contributes a variety of facilities for society. various news and intermezos from various countries can be touched and can be accessed by anyone, anytime, and anywhere. Information media has the purpose of providing information, entertaining, or influencing someone. Adolescence is a period of transition and rapid progress in terms of physical, psychological and intelligence, has similar specific or special characters, namely having broad curiosity, adventurous and challenging also more likely to dare to accept the risks of their actions without detailed consideration is a typical trait of adolescents [1][2][3]. The conditions of globalization make the condition of adolescents worse, so supervision and guidance are needed for adolescents. Research results show that adolescents often use the internet for pleasure or entertainment rather than looking for positive information such as reproductive health, or other learning tools, communication and transactions[2][4][5]. This risks

decreasing the insight of adolescents related to reproductive health and its quality[6][1]. Adolescent reproductive health is influenced by external factors including low parental assistance, environment, socialization, beliefs as well as different genders and freedom of facilities without supervision. Internal factors also affect individual knowledge, adolescent behavior, religious education obtained, and adolescent age which affects the increase in hormones during puberty [7][8][9][10].

Pondok Al Asror has 957 santri and santriwati. Santri and santri who stay at Al Asror hut, from various sub-districts in Bangkalan regency, the majority of santri are studying at the senior high school level, namely at MAN, SMAN 2 and a small portion of them study at SMAN 3 Bangkalan. The junior high school students mostly attend MTSN and SMP Negeri 5 Bangkalan. In Al-Asror hut, there are no Internet facilities, but during the pandemic, santri and santriwati were allowed to bring smartphones to attend school online, but in undergoing the religious learning process in the hut offline. After there is a regulation that PBM activities in public schools are 50%

offline, santri and santri who go to school are allowed to bring smartphones, but after arriving at the hut the smartphones are collected in the room supervisor. Based on interviews, in public schools, santri and santri can use smartphone media to access school assignments and after that it is mostly used for the pleasure of (social media).

Santriwati get information about reproductive health in public and religious school lessons, especially how to take a bath after menstruation, besides that reproductive health problems are still taboo to be discussed in the cottage environment, because adolescents will understand by themselves about reproductive health after marriage later[5][11][9]. Reproductive health problems are still high, knowledge is still low and attitudes are still lacking, and peer communication affects reproductive health[12][7][13][14]. The explanation of the results of research that students know less about the anatomy and function of reproductive organs, sexually transmitted diseases and contraception. Knowledge of adolescent reproductive health in East Java amounted to 59.2%. The aim of this community service is to increase knowledge of santriwati about reproductive health for adolescents, to increase involvement of cottage managers in knowledge about reproductive health for adolescents, to utilize of information facilities in Al-Asror Islamic boarding school in Bangkalan Regency in accessing reproductive health. Increasing the knowledge of female students about reproductive health by 60%, and the utilization of information tools in accessing adolescent reproductive health by 40%[15]

## II. METHOD

Community service activities begin with coordinating with the management of the Al-Asror Islamic Boarding School in Bangkalan Regency. Next is to coordinate with the Head of the Bangkalan City Health Centre and the person in charge of the School Health Effort (UKS) program in charge of school children and youth programs, at the health centre level. Coordination continued with the person in charge of the School Children, Youth and Elderly programme at the Health Office regarding community service activities. **FIGURE 1** shows the next step was to obtain a licence from BAKESBANGPOL of Bangkalan Regency with a letter number 072/201/433.207/2022 addressed to Al-Asror Pondok Bangkalan. **FIGURE 2** shows coordination with the management of the Al-Asror hut in Bangkalan Regency and given permission, with the number of teenagers (santriwati) 25 people.

## III. IMPLEMENTATION

The activity was carried out on the campus of the Bangkalan Midwifery D3 Study Program because at the same time the Hall at the boarding school was being used for cottage activities on 06 June 2022 at the Bangkalan Midwifery D3 Study Program Campus. All participants consisted of the academic community of D3 Midwifery Study Programme

Bangkalan consisting of 3 lecturers and 3 students as well as 25 santriwati teenagers.

### A. Preparation

The application of health protocols by using hand sanitisers, wearing masks and maintaining distance are health rules that must be obeyed by participants. Before entering the room, participants are encouraged to use hand sanitizer, wear a mask and fill out the attendance list. After filling in the attendance list, participants were given stationery to take the pre-test to find out the knowledge of santriwati about adolescence, reproductive health and information media, previously santriwati were given material about these 3 things.



**FIGURE 1.** Planning And Licensing Phase Activities With Formal Community Leaders



**FIGURE 2.** Planning And Licensing Phase Activities with Informal Community Leaders

### B. Material Provision and Discussion

**FIGURE 3, 4, 5** shows providing counseling material is carried out by community service lecturers using lecture, discussion and brain storming designs. The facilities used are LCD projectors, Brain Storming and Leaflets. LCD Projector is used so that students can understand it more easily and more enthusiastically, Brain Storming is used so that students are more involved in proactive and open discussions

about reproductive health problems that are often experienced by students while in pesantren in a relaxed and informal manner, while Leaflets are used for independent and practical learning about reproductive health in pesantren[16][17], if students do not hold smartphones. Information provided with the subject matter of adolescence includes: understanding adolescence, adolescent period, physical, psychosocial, emotional and intelligence development in adolescents[18][17][19]. The second subject matter is related to reproductive health including: definition, reproductive health in adolescents, reproductive health rights, reproductive health problems, types and causes of diseases that attack adolescent reproduction, as well as how to care for reproductive health in adolescents and preparation for adolescent reproductive health[12][20][21]. The third subject is information media including: understanding, types of information media, functions and benefits of information media.



FIGURE 3. Photo of the Material Provision and Discussion Stage Activities

### C. Closing Activities

To determine the knowledge level of santriwati after santriwati are given counseling material. Data collection tools use questionnaires related to adolescent reproductive health, and information media that aim to measure respondents' knowledge[22][23].

## IV. RESULT

### A. Preparation

At the end of the counseling activity, a post test was conducted to measure adolescents' insights related to reproductive health and information media[24][16]. The results of the first test and the second test can be seen in TABLE 1 below.

TABLE 1

Results of the first test and the second test of Adolescents' Knowledge of Reproductive Health at Pondok AL-Asror Bangkalan

Knowledge Level	Pre-Test		Post Test	
	n	%	n	%
Good	0	0	18	72
Fair	13	52	5	20
Less	12	48	2	8

Based on TABLE 1, the Pretest results showed that adolescents had sufficient knowledge about reproductive health as much as 52% and less knowledge as much as 48%.

The results of the posttest obtained the value of knowledge about adolescent reproductive health with a good score of 72%, and less knowledgeable as much as 8%.

TABLE 2

Results of Pre and Post test Knowledge of Adolescents with Information media

Knowledge Level	Pre-Test		Post Test	
	n	%	n	%
Good	9	36	21	84
Fair	11	44	4	16
Less	5	20	0	0

The TABLE 2 shows the results of the pre test, obtained data on adolescents having sufficient knowledge about information media as much as 44% and less knowledgeable as much as 20%. The results of the post-test obtained the value of knowledge about information media with good scores as much as 84%, and 16% with sufficient knowledge.



FIGURE 4. The Material Provision and Discussion Stage Activities





FIGURE 5. Material Provision and Discussion Stage Activities

B. Evaluation

After counseling and taking the post-test, adolescents were given leaflets on reproductive health using Indonesian and local language (Madura), so that adolescents could learn independently in the hut after that adolescents were allowed to return to the hut. 2 weeks later the service team came to the cottage to conduct the second evaluation. The results can be seen in TABLE 2.

TABLE 2  
Results of the 2nd Evaluation of Adolescents' Knowledge of Reproductive Health In Pondok AL-Asror Bangkalan After Counseling

Knowledge Level	2 <sup>nd</sup> Evaluation	
	n	%
Good	25	100
Fair	0	0
Less	0	0

TABLE 2 shows that adolescent reproductive health knowledge is good (100%).



FIGURE 6. Leaflets On Reproductive Health

For the utilization of information media, the cottage manager has provided time to access related to adolescent reproductive health, on school holidays and outside cottage activities, with an access time of 30-45 minutes, in the guidance room of each room.

V. DISCUSSION

Health education about reproductive health in adolescents is very important because, in the future, adolescent girls will become mothers who will give birth to a new generation. If adolescent girls have good insight or knowledge related to reproductive health, they will behave positively and maintain their reproductive health for better preparation in the family (marriage age), so that later they will give birth to a healthy and superior generation. A healthy generation is obtained from a healthy reproductive system[7][15]leaflet. Reproductive health knowledge is related to family preparation. Adolescent knowledge is good, because adolescents are very enthusiastic about participating in health education provided by the community service team, especially after the pandemic, because during the pandemic

adolescents were only at home. Health education affects adolescent reproductive health knowledge, increases knowledge about the dangers of early marriage, affects adolescents' insights and behavior about free sex, increases knowledge of adolescent sexual behavior[25]. The lecture method used in health education can improve adolescents' insights related to reproductive health. Adolescent reproductive health education is provided so that adolescents can maintain their reproductive health, think positively, have the skills to solve the problems they face and take a solution or decision related to reproductive health.

In order to maintain adolescents' insights related to reproductive health that are already good, the community service team also distributed leaflets FIGURE 6 on reproductive health with 2 languages, namely Indonesian and local language, namely Madura language, so that they are better understood and adolescents can learn independently in the cottage during leisure time. The benefits of leaflet media can increase the average value of adolescents' insights about reproductive health effectively improve adolescents' insights and behavior related to HIV/AIDS prevention (Hartati et al., 2020); improve adolescents' insights and behavior regarding the prevention of sex before marriage.

VI. CONCLUSION

Information media is a very good media in finding information, especially reproductive health. Adolescents in the cottage when there is free time and permission from the ustadz or ustadzah can access information on adolescent reproductive health through smartphones that are left in the cottage with the supervision of the supervisor. In the era of Informatics, digital literacy is very close to millennial adolescents or generation Z. Accuracy in using smartphones will make smart and resilient teenagers, because the benchmark of a country is seen from the quality of its teenagers.

REFERENCES

[1] D. Juniar, "Epidemiology of Dysmenorrhea among Female Adolescents in Central Jakarta," *Makara J. Heal. Res.*, vol. 19, no. 1, 2015, doi: 10.7454/msk.v19i1.4596.

[2] E. T. Ardianto and A. D. Elisanti, "Modeling Risk Factors of Dysmenorrhea in Adolescent," *J. Glob. Res. Public Heal.*, vol. 4, no. 1, pp. 47–53, 2019.

[3] L. Söderman, M. Edlund, and L. Marions, "Prevalence and impact of dysmenorrhea in Swedish adolescents," *Acta Obstet. Gynecol. Scand.*, vol. 98, no. 2, pp. 215–221, 2019, doi: 10.1111/aogs.13480.

[4] N. D. Ford et al., "Factors associated with anaemia in a nationally representative sample of nonpregnant women of reproductive age in Nepal," *Matern. Child Nutr.*, vol. 18, p. e12953, 2022.

[5] A. Yu, "Complementary and alternative treatments for primary dysmenorrhea in adolescents Abstract : Primary dysmenorrhea is the most common gynecologic complaint among," *Nurse Pract.*, 2014.

[6] S. Elzanaty and G. Dohle, "Advances in male reproductive surgery: Robotic-assisted vasovasostomy," *Curr. Urol.*, vol. 6, no. 3, pp. 113–117, 2013, doi: 10.1159/000343523.

[7] M. Alemayehu, T. Belachew, and T. Tilahun, "Factors associated with utilization of long acting and permanent contraceptive methods among married women of reproductive age in Mekelle town, Tigray region, north Ethiopia," *BMC Pregnancy Childbirth*, vol. 12, 2012,

- doi: 10.1186/1471-2393-12-6.
- [8] A. Haerian-Ardakani *et al.*, "Relationship between maternal periodontal disease and low birth weight babies," *Int. J. Reprod. Biomed.*, vol. 11, no. 8, pp. 625–630, 2013.
  - [9] A. Bahrami *et al.*, "Neuropsychological function in relation to dysmenorrhea in adolescents," *Eur. J. Obstet. Gynecol. Reprod. Biol.*, vol. 215, pp. 224–229, 2017, doi: 10.1016/j.ejogrb.2017.06.030.
  - [10] K. A. McKenna and C. D. Fogleman, "Dysmenorrhea," *Am. Fam. Physician*, vol. 104, no. 2, pp. 164–170, 2021, doi: 10.5005/jp/books/12515\_3.
  - [11] S. Shahr-jerdy, R. S. Hosseini, and M. E. Gh, "Effects of stretching exercises on primary dysmenorrhea in adolescent girls," *Biomed. Hum. Kinet.*, vol. 4, no. 2012, pp. 127–132, 2012, doi: 10.2478/v10101-012-0024-y.
  - [12] S. S. Ningrum, D. Indarto, and M. Wijaya, "Employment Status, Family Income, Contraceptive Availability, and their Effects on the Use of Long Term Contraceptives in Sukoharjo, Central Java," *J. Matern. Child Heal.*, vol. 01, no. 03, pp. 179–187, 2016, doi: 10.26911/thejmch.2016.01.03.05.
  - [13] &NA; M O, "Medical Physiology," *Am. J. Med. Sci.*, vol. 244, no. 3, 1962, doi: 10.1097/00000441-196209000-00028.
  - [14] V. De Sanctis *et al.*, "Primary dysmenorrhea in adolescents: Prevalence, impact and recent knowledge," *Pediatr. Endocrinol. Rev.*, vol. 13, no. 2, pp. 512–520, 2015.
  - [15] R. Kalra, "Perceptual analysis of women on tubectomy and other family planning services: a qualitative study," *Int. J. Reprod. Contraception, Obstet. Gynecol.*, vol. 4, no. 1, p. 1, 2015, doi: 10.5455/2320-1770.ijrcog20150218.
  - [16] V. De Sanctis, A. T. Soliman, H. Elsedfy, N. A. Soliman, R. Elalaily, and M. El Kholy, "Dysmenorrhea in adolescents and young adults: A review in different countries," *Acta Biomed.*, vol. 87, no. 3, pp. 233–246, 2016.
  - [17] R. I. El-Mowafy, M. M. Mohamed Moussa, and H. H. El-Ezaby, "Effect of Health Education Program on Knowledge and Practices about Menstrual Hygiene among Adolescents Girls at Orphanage Home," *IOSR J. Nurs. Heal. Sci.*, vol. 3, no. 6, pp. 48–55, 2014, doi: 10.9790/1959-03614855.
  - [18] E. V. A. Y. Deykin, J. C. Levy, and V. Wells, "Adolescent Depression, Alcohol and Drug Abuse," vol. 77, no. 2, 1987.
  - [19] N. Meiji, A. Widiyanto, A. Kodir, and I. Irawan, "Strengthening Village Information System to Reach Good Governance in Rural Areas through Participatory Rural Appraisal," 2019, doi: 10.4108/eai.8-12-2018.2283894.
  - [20] S. Iacovides, I. Avidon, and F. C. Baker, "What we know about primary dysmenorrhea today: A critical review," *Hum. Reprod. Update*, vol. 21, no. 6, pp. 762–778, 2015, doi: 10.1093/humupd/dmv039.
  - [21] J. Gallegos, A. Rodríguez, G. Gómez, M. Rabelo, and M. F. Gutiérrez, "The friends for life program for Mexican girls living in an orphanage: A pilot study," *Behav. Chang.*, vol. 29, no. 1, pp. 1–14, 2012, doi: 10.1017/bec.2012.8.
  - [22] J. R. Rajpura and R. Nayak, "Role of Illness Perceptions and Medication Beliefs on Medication Compliance of Elderly Hypertensive Cohorts," vol. 27, no. 1, pp. 19–24, 2014, doi: 10.1177/0897190013493806.
  - [23] S. E. Kopperud, H. V. Rukke, H. M. Kopperud, and E. M. Bruzell, "Light curing procedures – performance, knowledge level and safety awareness among dentists," *J. Dent.*, vol. 58, pp. 67–73, 2017, doi: 10.1016/j.jdent.2017.02.002.
  - [24] D. P. O. Lestari, S. R. Dewi, and N. W. Armerinayanti, "Strengthening the Role of Cadres and Village Midwives to Support the Cervical Cancer Awareness Movement in Puhu Payangan Village, Gianyar, Bali, Indonesia," *J. Pengabd. Kpd. Masy. (Indonesian J. Community Engag.)*, vol. 7, no. 1, p. 41, 2021, doi: 10.22146/jpkm.43355.
  - [25] A. Corneli *et al.*, "Contraceptive service delivery in Kenya: A qualitative study to identify barriers and preferences among female sex workers and health care providers," *Contraception*, vol. 94, no. 1, pp. 34–39, 2016, doi: 10.1016/j.contraception.2016.03.004.