

PAPER • OPEN ACCESS

Online media development of natural family planning

To cite this article: Andi Asmawati Azis *et al* 2019 *J. Phys.: Conf. Ser.* **1317** 012197

View the [article online](#) for updates and enhancements.

You may also like

- [Second comment on 'The climate mitigation gap: education and government recommendations miss the most effective individual actions'](#)
Rebecca Laycock Pedersen and David P M Lam
- [Classification accuracy on the family planning participation status using kernel discriminant analysis](#)
Dian Kurniawan, Suparti and Sugito
- [Women's empowerment and unmet needs for family planning in Indonesia](#)
Diah A Utami and Omas B Samosir



Connect with decision-makers at ECS

Accelerate sales with ECS exhibits, sponsorships, and advertising!

▶ Learn more and engage at the 244th ECS Meeting!

Online media development of natural family planning

Andi Asmawati Azis*, Andi Faridah Arsal and Andi Bida Purnamasari

Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Makassar, Indonesia

*asma.azis@gmail.com

Abstract. This research aimed to develop natural family extension media online which can be used as alternative method of family planning, to know the effectiveness of natural family planning extension media online, and to give knowledge of reproductive health in women. The development of Natural Family Planning media using the 4-D development model developed by S. Thiagarajan, Dorothy S. Semmel, and Melvyn I. Semmel includes: Define, Design, Develop and Disseminate. Stage Develop, producing revitalized Natural Algorithm on line media based on input from experts and on-line instruments to get a knowledge of family planning and reproduction health. Furthermore, the dissemination (Disseminate). At this stage is use of Natural Family Planning extension of media online/off line that has been developed on a wider scale to conduct Natural Family Planning online/ offline. Results obtained 1) Natural Family Planning media online/offline in the form of PPT Media, Video, Quiz and Forum Valid, 2) Media Extension effectively used by family planning officer of online, 3) Natural Family Planning improved female reproductive health.

1. Introduction

Indonesia's population in 2007 was around 222 million people, on average with population growth above 1.3% per year. The population growth is about 2.8 million per year and increase every year. The high growth rate of the people is now a big problem. To handle this continuously, Family Planning extension is conducted to decrease the population growth rate. Data from the National Family Planning Coordinating Board, South Sulawesi Province from 2002-2006 on Family Planning participants actively experienced an increase and decrease. The ups and downs of active family planning acceptor indicate that awareness of Elderly Fertile Couple for family planning is still lacking, many active family planning acceptor drop out, lack of field workers causing weakening of natural family planning acceptor development. The EFA community is not yet fully aware of family planning, although the government has been working with various programs to draw public sympathy in participating in the success of family planning programs. The government has placed extension workers in each sub-district and village midwives to provide counseling about family planning.

Other efforts to reduce the number of population growth through efforts to awareness and provision of contraceptive services for free, easily affordable and effective. Family planning services in South Sulawesi are already the responsibility of the Government, although the popular family planning is seen with embedded family planning symbols in places like "two children are better", the EFA commitment to the implementation of family planning programs has not been maximized. In the past, civil servants and government officials were obliged to make family planning, the reality is now about



15% of civil servants who have children 3 or more people, while in fisher families there are 25% have children of three or more and not acceptors (Azis and Muis, 2006).

Family Planning consists of natural or traditional methods, modern methods and emergency methods. Modern methods have been widely recognized by the world community is evidenced by the highest usage rate including Indonesia. In Indonesia the natural family planning method has not been popular due to the low level of average education and knowledge of natural family planning methods. Natural family planning information from the government, private parties, family planning and reproductive health is still minimal. In developed countries like America, Australia, Japan many choose natural family planning because they are interested in methods that involve their understanding of fertility, easy to use especially for women whose menstrual cycle is between 26 - 32 days. The natural fertility-based family planning method avoids intercourse during the fertile days of the 11th to 17th day of the menstrual cycle. Other natural family planning methods are based on existing or nonexistent cervical secretions to identify fertile days. Modern natural family planning methods are gaining popularity based on salivary secretions. The family planning method is 95% effective and appropriate in midwifery practice. (Germano and Jennings, 2006).

Male participation in the implementation of family planning is still low only 4.4% include: 0.9% condom, vasectomy 0.4%, 1.5% CI and 1.6% periodic abstinence (IDHS 2002-2003). This is due to limited types of male contraception and lack of promotion for men. According to Ezeh and Bowp (1997) the source of contraceptive use differences is gender differences, reporting, interpretation of contraceptive contribution and level of knowledge of wives and husbands on family planning, hence a method that can improve intra-EFA communication in Family Planning (Cleaveland, 1992).

Natural family planning methods have been used by educated EFAs, with high success and 5-10 years of use. The reason for the selection of family planning is because of ease, practicality, safety, while modern family planning can cause side effects. The successful use of natural family planning encourages researchers to assess the potential of family planning to increase the number of family planning acceptors, but from planning, implementation, requiring information, knowledge, discussions, attitudes and consent of EFA. Efforts to increase motivation and participation in natural family planning are with the Education Information Communication that can be done by extension workers, Village Midwives, Biology Teachers and acceptors who have adequate information, experience on natural family planning. Implementation of the National Family Planning program puts the information as one of the strengths to change attitudes, behaviors, and values both among the implementers and managers of the National Family Planning Program and among Indonesian families and communities. With natural birth control, it can provide awareness of fertility and reproductive health for women and their partners. To facilitate extension workers, village midwives and EFAs to obtain natural family planning information needed an online counseling media that can be affordable to many parties, easy to understand, easy to communicate. With the result of the product in the form of natural family planning media online, it is expected that family planning, midwife and midwife in Makassar can get information about natural family planning as cheap alternative, easy to learn and not contrary to religion and culture and no side effects. Through natural family planning of online family planning can change perception of Family Planning Extension to Natural Family Planning and add natural family planning insight. In addition, natural family planning can be used to get a baby for EFA who has not had offspring. Based on the above background, it is necessary to research the development of online media of Natural Family Planning for Family Planners, Midwives, and EFA in Makassar City. The results of this study can be an alternative family planning that is easy, free, meet the sense of gender justice, safe and can increase the participation of men as acceptor. B. Special Purpose are to develop online media for natural family planning extension and to provide healthy reproductive knowledge the fertile couple.

2. Research Methods

This type of research is an online media development research for natural family planning extension and research instrument using 4-D development model developed by S. Thiagarajan, Dorothy S.

Semmel, and Melvyn I. Semmel. The 4D development model consists of 4 main stages: Define, Design, Develop and Disseminate. Development stage, produces online media for Natural Family Planning extension that has been revised based on input from experts and also instrument to get description of knowledge and implementation of Natural Family Planning in Makassar City. Next will be spread (Disseminate). At this stage is the stage of online media use for Natural Family Planning which has been developed on a wider scale by doing Natural Family Planning on EFA with emphasis on biological indicators.

Samples will be selected by all sub-districts (14) in Makassar city. Each sub-district consists of two extension workers and only one extension agent is selected. From 14 counselors selected 7 counselors at random. Each counselor as a sample is given a web address: kbalami.com and a practicality assessment sheet of use from online media kbalami.com. Natural family planning online media experience as much as three structured materials equipped with each quiz, if the problem is answered 80% correct, will get the certificate online.

Component of Extension Material of Natural Family Planning media online The extension materials needed in order to manage preparing process consist of: Reproduction structure and function, Family Planning and Family Planning, Natural Family Planning Implementation Method. Other items are curriculum material for extension, leaflet, natural family planning manual, EFA Books Book and PPT Media.

Development Procedure Natural Family Planning media online: a. Stage Define (Restriction) At this stage there are restrictions on the study of natural family planning and limits research on online media development for counseling, natural family planning manuals, EFA Books and test instruments on the validity and practicality of on-line media. The defining stages include the following activities: Initial analysis, Material analysis, Participant Candidate Analysis of Extension, Midwife and fertile couple. b. Design stage (design) At this stage, the design of online media natural family planning extension, the design of natural family planning guide to extension family planning and EFA and design of test instruments. Initial draft in question is the design of all activities that must be done before the trial run. The initial draft of online media extension includes material, curriculum, liflet, natural family planning guide, EFA book. All the extension materials are covered at this stage is called prototype one. Instruments designed for use in online media assessment extension consist of: validation sheet, practicality sheet and quiz. c. Develop, This development stage aims to produce natural living birth counseling materials online: reproduction system, tool, function, process and prevention of natural pregnancy (biological) as follows: i) Making teaching materials biological indicators of natural family planning, ii) and revision of natural family planning online teaching materials by natural lecturers Biology 2 people and 7 extension workers family planning in the city of Makassar.

3. Results and Discussion

Validation Test. The third stage in this research is the stage of development of the online media development stage that has been generated from the design stage in the form of natural family planning materials, curriculum, leaflet, handbook, and EFA book. This development stage is done by giving the product to expert and practitioner validators to see the level of the validity of the products. This validation stage is done twice, the first validation is done by the experts in the field of material and education then the second validation stage is done by the extension practitioners as well as will use the products in the counseling. Product validation is reviewed from four aspects: content feasibility, feasibility of presentation, language feasibility, and design. In summary, the validation results for these four aspects can be seen in Table 1.

Table 1. Validation Results from Expert Validator

Aspects	Description	Validator		Average	notes
		1	2		
Design	1. Conformity of text type (font) to	4	4	4,00	V

Format of online media					
Format of media online	2. Text size (size) on online media	4	4	4,00	V
	3. Text color on online media	4	5	4,50	V
	4. Readability of online media text	5	4	4,50	V
	5. Colors image on media online	5	5	5,00	V
	6. Image size on online media	4	5	4,50	V
	7. Readability of images on online media	4	5	4,50	V
	8. Captions on online media images	4	4	4,00	V
	9. Combination background with text and image	4	5	4,50	V
	10. Supporting materials in the form of images with the concept	5	5	5,00	V
	11. Depth of material description is quite	4	4	4,00	V
	12. Quiz and material on online media	4	4	4,00	V
	13. The material in online media is made each topic	5	4	4,50	V
	Contruction of content media online	14. The truth of the presentation of the material on online media	4	4	4,00
15. The accuracy of the presentation order ian material on online media		4	5	4,50	V
16. Material communicative submitted		5	4	4,50	V
17. Material leads to the goal to be achieved		5	5	5,00	V
18. Ease of understanding the material		5	4	4,50	V
19. Ease of using online media		4	4	4,00	V
20. Easy to understand language used		5	4	4,50	V
Language	21. Consistency of use of terms	4	4	4,00	V
	22. Use of grammar according to enhanced spelling	4	4	4,00	V
	23. Sound animation on online media	4	5	4,50	V
	24. Interactive quiz both on online media	5	4	4,50	V
Interactive	25. Chat goes well on online media	5	4	4,50	V
	26. Discussion forums are easy to use on online media	5	4	4,50	V

Based on Table 1, it is seen that in general the four aspects of the review in the validation process have been declared less valid and valid enough. This first validation process is performed by an expert validator in this case as many as five validators. This first validation result shows that the four aspects of focus which are then translated into 26 indicators, 22 indicators have been declared included in the category quite valid ($3.0 \leq Va < 4.0$) and 2 indicators are stated still in the category of less valid ($2, 0 \leq Va < 3.0$). Aspects of design into aspects that some indicators are still in the category of less valid that is as much as 2 of 7 indicators for this aspect. The second validation process is performed after the repair/revision of the product based on the results of the first validation.

The validation results indicate that the resulting product has improved visible from 25 indicators, 13 of which are in valid category and the rest are in fairly valid category. This result indicates that the products produced in this development have been able to be used for further trial in the field. The practical test is assessed from the observation of the experts and practitioners when the product used is tested in the field in this case done by the extension workers to the wives of the EFA. The results of

the practicality test from the material aspect for the three materials presented are the reproduction system, natural family planning, and modern family planning are in good and excellent category. This means that the material is generally well organized and accurate so it is practical to be used in extension activities. The second aspect observed in the test of practicality is the delivery by extension agents. The test results obtained are in very good, good, and good category. These results indicate that the systematics of delivery of materials by extension workers have been in accordance with the expected so that the material presented along with the way of delivery is more or less in accordance with the planning. In general, the results obtained indicate that the products produced can be used in the field by the extension and EFA under conditions improvements to several aspects as shown in Table 2.

Table 2. Suggestions from Six Extension Trainers in Makassar City

No	Extention Trainer	Suggestion	Revision
1	Trainer I	1. More Improved Views 2. Edit and revision quiz answers	Edit and revise quiz
2	Trainer II	1. Front view is too simple 2. Content more enriched	1. Front display arrangement 2. Addition of material that is natural family planning explanation in the form of animation
3	Trainer III	1. Preparation of sentences in difficult to understand, should be arranged well and more clearly 2. The design format is slightly corrected between the suitability of color and text to make it more interesting, in addition the order / design is also less regular	1. Simplify the use of sentences on content 2. Revise the suitability of the design / layout of colors, text and images on web pages
4	Trainer IV	Views can be made more interesting	Revise the look of the website page
5	Trainer V	The compilation of words in the instructions is less easy to understand and the wording in the problem also needs to be fixed so that it is quickly understood	Fixed the use of grammar to be simple
6	Trainer VI	1. The display is too simple 2. Language used sometimes is not understood	Improve the look and use of language on website

4. Conclusion

The naturally occurring online natural family planning media developed has been declared valid by Expert, Practicality of online media quite practical and need to repair the look of online media so that more interesting.

Reference

- [1] Anonim. 2006. Model pelatihan Kesehatan Reproduksi Remaja Melalui Jalur Masyarakat, Pusat Pelatihan Pegawai dan Tenaga Program BKKBN Jakarta.
- [2] Anonim, 2006. Partisipasi Pria dan KB dan Kesehatan Reproduksi, BKKBN Jakarta.
- [3] Albar E. 2007. Kontrasepsi Ilmu Kandungan. Yayasan Bina Pustaka Sarwono Prawirohardjo.

- Jakarta. Hal. 535 – 575.
- [4] Azis A.A.dan Muis, 2006. Pengetahuan Kesehatan Reproduksi pada Keluarga Nelayan diSinjai Utara. Jurnal Bunga Wellu PSW LPPM. UNM Makassar.
- [5] Azis A.A. dan Muis, 2007. Pengetahuan Kesehatan Reproduksi dan Kontrasepsi pada Wanita Karir (Studi Pada Dosen Wanita di Makassar). Laporan Hasil Penelitian LPPM. UNM Makassar.
- [6] Cleaveland, K. 1992. Komunikasi Utama untuk Keluarga Berencana. Jaringan, Agustus 1992,13(1):13 Pmid:12317720 (PubMed-indexed for Medline).
- [7] Gernamo E., V. Jennings. (2006). New approaches to fertlity awreness-based methods: incoporating the Standard Days and Two Day Methods in to practice. *AbstractPlusJ.Midwifely Womens Health, No-Des :51:471-7.*
- [8] Glasier A., dan A. Gebbie (2006). Keluarga Berencana dan Kesehatan Reproduksi. PenerbitBuku Kedokteran EGC Jakarta.
- [9] Grimes D.A., Maria F.G, Vera H. et al. 2007. Fertility Awareness-based Methods forContraception. Intervention Review. *Copyright@ The Cochrane Collaboration.Published by John Wiley & sons, Ltd.*
- [10] Ha B.T.T.B. Jayasurya R. Owen N., 2003. Male Involvement in Family Palnning in RuralVietnam: an Aplication of the Transtheoretical Model. *OxfordUniversity Press Vol.18 No.2 Page 171-180.*
- [11] Hanafiah M.J. 2007. Haid dan siklusnya. Ilmu Kandungan. Yayasan Bbina Pustaka
- [12] Sarwono Prawirohardjo. Jakarta. Hal.103 – 125.
- [13] Hobri. 2009. Metodologi Penelitian Pengembangan (Developmental Research) aplikasipada Penelitian Pendidikan matematika), Word Editor.Office 2003.
- [14] Howard I.Godlberg and Aykut Toros, 1994. The Use of Traditional Methods of Contraception among Turkish Couples. *JSTOR: Studies in Family Planning, Vol.25, No.2 (Mar-Apr), pp.122-128.*
- [15] Rogow D, Horowitz S (1995), Penarikan: Tinjauan dari literatur dan agenda untuk penelitian “*Studi Keluarga Berencana* 26 (3):140 - 53. Yang CITES.
- [16] Saifuddin A.B.Affandi B. Baharuddin.M dan Soekir S (2005). Buku Panduan Praktis Pelayanan Kontrasepsi. Ed.2. Yayasan Bina Pustaka Sarwono Prawirohardjo. Jakarta.
- [17] Sato R and M. Iwasawa, 2006. Contraceptive Use and Induced Abortion in Japan: How Is ItSo Unique among the Developed Countries?. *The Japanese Journal of Population, Vol. 4,NO.1 (March) PP.33-54.*
- [18] Sherwin B.B. 1991. The infact of Different Doses of Estrogen and Progesteron on moodand seksual Behavior in Postmenopausal women. *J.Endocrinol Metab 72.336 – 343.*
- [19] Surjaningrat S. 2005. Keluarga Berencana dalam Kesehatan Reproduksi. Bunga RampaiObstetri dan Ginekologi Sosial. Yayasan Bina Pustaka Sarwono Prawirohardjo.Jakarta. Hal. 199-220.
- [20] WHO, 1993 Keluarga Berncana Alam Kontrol Kelahiran Efektif dan Didukung oleh Gereja Katolik. REJ Ryder. British Medical Jurnal 18 Spetember, 1993 v307 n6906 p723 (4).
- [21] Wonodirekso S. 1991. Sadar subur Dasar penerapan KB alam, MDK/Vol-10, no.1/ Januari.
- [22] Woodgold, C. And Damme, J.V. 2002. J Primer pada Keluarga Berencana Alami. Ver. 2,07-11/17/2002.
- [23] Zheng, J. 1991. Laporan Survey Indonesia. Popul Today, Oktober 1991;19 (10);5. Pmid:12284304 (PubMed_indexed forMiedline).