

ACCEPTABILITY AND UTILIZATION OF THE KESCATIN APPLICATION AS A MEDIA FOR REPRODUCTIVE AND PRECONCEPTION HEALTH EDUCATION

*Akseptabilitas dan Pemanfaatan Aplikasi Kescatin sebagai Media Edukasi
Kesehatan Reproduksi dan Prakonsepsi*

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ABSTRAK

Aplikasi Kescatin merupakan media edukasi berbasis android menawarkan pendidikan pranikah bagi calon pengantin dan pasangan usia subur Penelitian ini dirancang dengan metode campuran secara bersamaan dan dilakukan di kota Pangkalpinang dari Mei hingga Juni 2024. Tujuan penelitian adalah untuk menggali pengalaman bidan menggunakan aplikasi kescatin dan mendeskripsikan penerimaan calon pengantin dalam pemanfaatan aplikasi kescatin. Sangat disarankan agar pengguna berpartisipasi aktif dalam mendukung layanan kesehatan reproduksi bagi catin karena ini akan meningkatkan kesadaran dan pemahaman tentang pentingnya kesehatan reproduksi, terutama skrining pranikah. Konstruktivisme adalah paradigma dalam penelitian kualitatif, sementara paradigma kuantitatif adalah pos-positivisme. Pengumpulan data kualitatif menggunakan teknik purposive sampling dalam memilih responden berdasarkan kriteria inklusi yang relevan dengan tujuan penelitian. Sejumlah 15 bidan yang memberikan layanan kesehatan reproduksi di wilayah puskesmas Kota Pangkalpinang telah dipilih untuk wawancara mendalam dan sejumlah 40 orang calon pengantin diberikan instrumen kuesioner untuk mengumpulkan data kuantitatif. Penelitian kualitatif menggunakan perangkat lunak Nvivo untuk menganalisis konten, yang mencakup transkripsi, pengkodean, kategorisasi, dan analisis tema. Hasil penelitian kualitatif menunjukkan tiga tema: layanan kesehatan reproduksi untuk calon pengantin; penggunaan teknologi dan aplikasi kescatin. Terkait pengalaman bidan, penelitian ini menemukan hasil yang berbeda, tidak semua bidan berpikir bahwa aplikasi tersebut dapat membuat kerja bidan lebih baik. Aplikasi kescatin dinilai membuat pekerjaan bidan menjadi lebih banyak dan menghambat pekerjaan lainnya..Menurut hasil penelitian kuantitatif, 95% catin memiliki niat perilaku untuk menggunakan aplikasi tersebut. Singkatnya, aplikasi kescatin dianggap bermanfaat, mudah digunakan, didukung oleh lingkungan sosial, dan didukung oleh kondisi fasilitas yang memadai untuk memastikan penerimaan dan penggunaan yang optimal.

Kata Kunci: aplikasi kescatin, calon pengantin, kesehatan reproduksi, media edukasi, penerimaan, pemanfaatan

ABSTRACT

The Kescatin application is an android-based educational media offering premarital education for prospective brides and couples of childbearing age. This study was designed with concurrently related mixed methods and conducted in the city of Pangkalpinang from May-June 2024. The study aimed to explore the experience of midwives using the kescatin application and describe the acceptance of prospective brides in utilizing the kescatin application. It is highly recommended that users actively participate in supporting reproductive health services for catin as this will increase awareness and understanding of the importance of reproductive health, especially premarital screening. Constructivism is the paradigm in qualitative research, while the quantitative paradigm is post-positivism. Qualitative data collection used purposive sampling technique in selecting respondents based on inclusion criteria relevant to the research objectives. A total of 15 midwives who provide reproductive health services in the puskesmas area of Pangkalpinang City were selected for in-depth interviews and a total of 40 prospective brides were given questionnaire instruments to collect quantitative data. The qualitative research used Nvivo software to analyze the content, which included transcription, coding, categorization, and theme analysis. The results of the qualitative research showed three themes: reproductive health services for brides-to-be; the use of technology and the kescatin application; and the use of the kescatin application. Regarding the experience of midwives, this study found different results, not all midwives thought that the application could make midwives' work better. The kescatin application was considered to make the midwife's work become more and inhibit other work.

Keywords: acceptance, bride, educational media, kescatin application, reproductive health, utilization

INTRODUCTION

The reduction of maternal mortality rate (MMR), infant mortality rate (IMR) and stunting is still a priority agenda on a national and global scale. Based on Indonesia's health profile in 2022, the MMR in Indonesia was recorded at 230 per 100,000 live births, and still has not reached the target of 102 per 100,000 live births. The National Medium-Term Development Plan (RPJMN) 2005-2025 priorities improving maternal, child, family planning and reproductive health [1],[2], [3]. According to National Population and Family Planning Agency or BKKBN through Elsimil in 2022, out of 151,599 brides to be throughout Indonesia, 83,379 (50.5%) experienced health problems. including brides to be with anaemia at 17.8%, brides to be too young at 7.2%, brides to be too old at 7.5%, and brides to be with chronic malnutrition at 18.5% [4],[5].

Reporting on regular data from Health Priority Set Data Communication Application, or Komdat Kesmas Bangka Belitung Islands Province in 2022, it is known that the number of reproductive health of prospective brides achievements is 60.70%, and the number of couples of reproductive age (PUS) women who are screened eligible for pregnancy is still very low at 0.41%. Meanwhile, Pangkalpinang City is the second lowest achievement of reproductive health of prospective brides at 49.32% and 1.33% of the number of women who were screened for viability in 2023 [6],[7],[8]. The results from several studies on factors affecting brides to be reproductive health services include low community knowledge about reproductive health and sexuality, limited access to information, lack of family and community support for reproductive health efforts and brides to be behaviour affecting the implementation of premarital screening [9], [10],[11].

One of the intervention is to run a reproductive health programme for brides to be [7] with the basic concept of Communication, Information and Education (CIE) which aims

to increase brides to be's knowledge and brides to be's reproductive health checks in pregnancy planning (screening eligible for pregnancy) to have a healthy and safe pregnancy and childbirth and obtain a healthy baby [12],[14] ,[15]. The Cooperation Agreement between the Ministry of Religious Affairs and the Ministry of Health on the Implementation of Marriage Guidance and Health Services for Prospective Brides, which is intended to support the implementation of marriage guidance and health services for brides to be[15],[16]. According to Mumtihanah 2017, the implementation of reproductive health counselling in the marriage guidance program is effective in improving the reproductive health knowledge of brides to be [18] ,[20] .

The innovation and utilisation of technology from the reproductive health programme is the bride-to-be health application (kescatin), launched by the Ministry of Health in 2020, aims as a medium for education and information on screening for pregnant women and couples of childbearing age. In addition, the kescatin application is also integrated with the reproductive health e-cohort, making it easier for midwives to control the health of brides to be [21] ,[22] ,[21] . Because there has been no research related to the acceptance test of kescatin application users in this case midwives and prospective brides in Indonesia, especially in Pangkalpinang City, Bangka Belitung Islands Province. Therefore, it is necessary to conduct research using the mix method to explore the acceptance of technology and also examine how the kescatin application can be applied in daily health services, this research is in line with the national priority to reduce maternal, infant, and stunting mortality rates, so that it is relevant and significant in the context of public health in Indonesia.

According to Musdalifah (2021) in her research with user acceptance theory, stated that android-based educational media is very effective and can be well received to increase brides to be's knowledge about family planning.[20] Research in line with the use of mobile-based brides to be kespro education media in 2021 states that the use of mobile-based reproductive health education media has several advantages, such as easy access, interactive, flexible, and cost-effective [24] ,[25] ,[26] .

The acceptability of an application depends on user acceptance [27] . Perception user about reception related application technology new health, for example user trust technology that, technology easy used nor data privacy and security [25]. However, many implementations fail due to behavioural issues related to the use of technology [29] ,[30] ,[28]

Referring to this matter and basis, the researcher needs to conduct research with a mix method method to explore the experience of midwives in utilising the kescatin application, and brides to be's acceptance of the kescatin application. In addition, mix method research is used by researchers to understand research phenomena from various perspectives, so that the research results become richer and more comprehensive

METHODS

This research design used concurrent embedded mixed method, aims to explore the experience of midwives in utilising the kescatin application and describe brides to be's acceptance of the use of the kescatin application. Research design this use *mixed-method concurrent embedded*, where researcher collect qualitative and quantitative data in a way simultaneously, researchers combining qualitative and quantitative data to obtain comprehensive analysis to use answer problem study. Research Model this *concurrent* combine method study in one the same time [32] , [33]. Focus study this is dig experience midwife in utilization application kescatin as an educational medium health reproduction and gain description reception candidate bride to use application kescatin .

This study was carried out in 2024 at Religious Affairs Office and Community Health Centers throughout Pangkalpinang City. Deep sample study quantitative is what fulfills its criteria inclusion that is brides to be registered with the city Religious Affairs Office Pangkalpinang in April - May in 2024, brides to be can read and write as well as communicate and brides to be who has and can using android. Exclusion criteria are respondents were unable to attend the study, with calculation formula descriptive numeric obtained amount sample as many as 40 respondents to measure application user acceptance, using the UTAUT theory developed by Vankatesh aims to explain user intention to use a system and usage behaviour. Sample qualitative is midwife involved in service health reproduction candidate bride and groom at the work area health center Pangkalpinang city. Amount sample adequate when categories (themes) have fed up or no give outlook new again that is a total of 15 informants. The prospective brides and grooms are given an explanation and asked to complete the informed consent sheet before filling out the research questionnaire. The study already implemented and obtained letter appropriateness ethics study hum number: 318/UN6.KEP/EC/2024 from Committee Faculty Health Ethics Padjadjaran University of Medicine, Bandung. Furthermore researcher submit application permission study to the Pangkalpinang City Health center and the Pangkalpinang City Ministry of Religion Office, for continue research at Religious Affairs Office and Community Health Centers in the work area city Pangkalpinang.

Instrument in this study consists from the research instrument qualitative and quantitative. On research qualitative instruments are researcher and use guidelines interview form sheet containing grille question with range time interview ranges from 30 to 60 minutes. Research tools used for support the research process. The research instrument that will be used in research quantitative arranged based on adaptation of questionnaire items used in research previously. Where is the research this use theory behavioral intention in the *Unified Theory of Acceptance and Use of Technology* model with take constructs in the model as customized gauge return with indicators and problems In this research done re- test validity and reliability before study carried out in order to obtain valid and consistent statement items Validity test use *Rasch Model* helped with use *Winstep software* [34] ,[32] Winstep is tool help computing on *the Rasch Model* For analyze resulting score from instrument test with objective know mark *Infit* and *Outfit* [36] . Data obtained transformed become numerical with Rasch modeling. Showing the item reliability has a score of 0.78 which means it is reliable, and the person's reliability has a score of 0.91 which means it is very reliable. Questionnaire totaling 18 statements with 5 points scale likert, absolutely not agree, no agree, undecided, agree and strongly agree. In column answer respondents can choose one the answer that is considered the most possible represent condition latest with give mark (✓) in the space provided.

Qualitative data collection done through *In-depth Interview* or interview deep for explore experience midwife in use application kescatin as effort enhancement achievements service reproductive health of prospective brides. Quantitative data collection for see acceptability that is taken from charging questionnaire for evaluate level reception brides to be to use application kescatin, in which there is a pocket book as a medium for premarital information, pregnancy screening, and pregnancy checks that can be used as an effort to improve the achievement of reproductive health services for prospective brides and grooms as an educational medium health reproduction and preconception.

Qualitative data analysis used *content analysis*, that is use results interview deep to subject study served in form the themes that become results main in study qualitative. The theme has been obtained interpreted/utilized to make more analysis complex . Interpretation results will served in form narrative, qualitative data processed with

method do organizing existing data collected use Nvivo. After editing was done for see completeness of data, then done reduction, coding, categorization , and interpretation of data. Data analysis will served in form the resulting narrative based on content that has been analyzed .

Quantitative data analysis used in this study is analysis univariate. Analysis univariate is analysis descriptive aim for displays characteristics prevalence from variable research. Size the statistics will is displayed that is in form distribution frequency for size data centering is depicted with average value, standard deviation, range and median

RESULTS

This research explain data regarding acceptance (acceptability) and utilization application kescatin as an educational medium health reproduction and preconception in the city Pangkalpinang Province Bangka Belitung Islands. The contents of the kescatin application are as shown in figure 1.

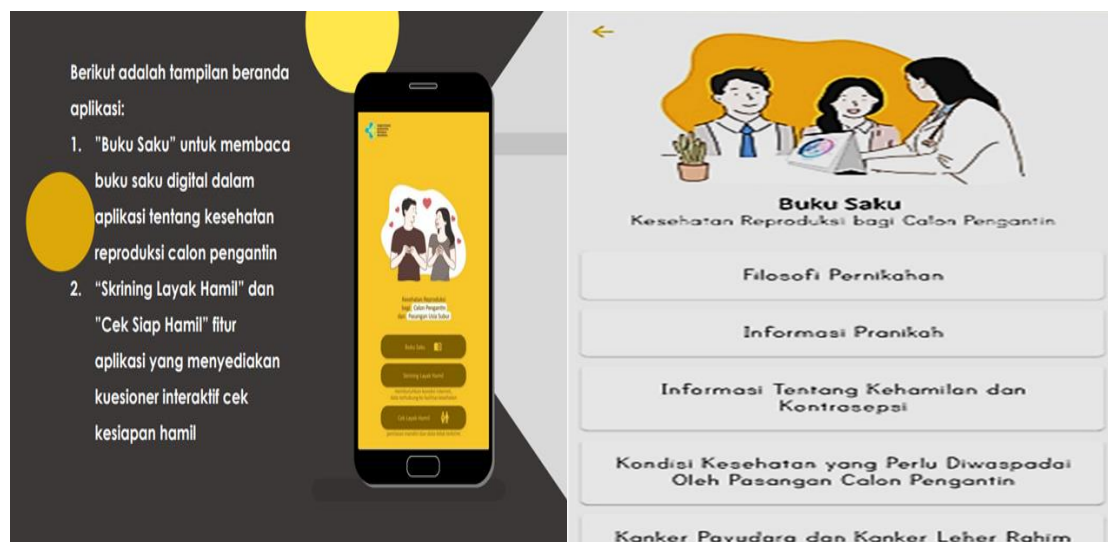


Figure 1. Kescatin Application

This kescatin application provides three main information topics as follows pocket book, pregnancy eligibility screening, and check for pregnancy eligibility. This pocket book discusses reproductive health for prospective brides and grooms and couples of childbearing age. This section contains the philosophy of marriage, premarital information, information about pregnancy and contraception, health conditions that need to be watched out for by prospective brides and grooms, breast cancer and cervical cancer, sexual life and disorders of husband and wife, maintaining mental health and harmony between husband and wife, equality between husband and wife in the household, and the healthy living community movement.

Figure 2. Pregnancy Eligibility Screening

In the screening section for pregnancy is a method used to find conditions or risk markers that are not yet known, contains the identity of the prospective bride and groom, results of physical examination and supporting examinations, supporting, health history, medical history, and others (Figure 2).

Figure 3. Check for Pregnancy Eligibility

Figure 3 show pregnancy check is a tool to see if you are healthy enough to get pregnant. This section contains an interactive questionnaire and is equipped with further explanations. The results of the pre-pregnancy education application design are expected to replace flip charts or leaflets during counseling by health service officers. This application makes it easier and increases the knowledge of prospective brides and

grooms about pre-pregnancy. Pre-pregnancy information can be obtained anytime and anywhere.

Qualitative data obtained from interview deep to the midwife did it service reproductive health of prospective brides at the Pangkalpinang City Health Center, the next is quantitative data obtained with spread questionnaire about acceptability application kescatin to 40 respondents (brides to be) registered with the city-wide Religious Affairs Office Pangkalpinang, the results study outlined as following :

1. Characteristics Research Subject

Findings in this study based on the information collected during period study. as depicted in tables 1 and 2 below, which illustrate results distribution frequency characteristics subject study qualitative and quantitative .

Table 1. Characteristics Informant

No	Name	Age (Years)	Education Final	Years of service	Duties and Positions	Experience use Application
1	R1	20-30 Years	DIII (Diploma)	1-5 Years	Family Planning Manager	Yes
2	R2	> 30 years	S2	> 5 Years	Catin Kespro Manager	Yes
3	R3	>30 Years	DIII	> 5 Years	Health Program Manager Family	Yes
4	R4	>30 Years	DIII	1-5 Years	Family Health Program Manager	Yes
5	R5	>30 Years	DIII	> 5 Years	Midwife	Yes
6	R6	>30 Years	DIII	> 5 Years	Midwife	Yes
7	R7	>30 Years	DIII	> 5 Years	Midwife	Yes
8	R8	>30 Years	DIII	1-5 Years	Midwife	Yes
9	R9	>30 Years	DIII	> 5 Years	Midwife	Yes
10	R10	>30 Years	DIII	> 5 Years	Midwife	Yes
11	R11	>30 Years	DIII	> 5 Years	Midwife	Yes
12	R12	>30 Years	DIII	> 5 Years	Midwife	Yes
13	R13	>30 Years	DIII	> 5 Years	Midwife	Yes
14	R14	>30 Years	DIII	> 5 Years	Midwife	Yes
15	R15	>30 Years	DIII	> 5 Years	Midwife	Yes

Source: Processed Primary Data, 2024.

Based on Table 1 above, it shows the variations and characteristics of respondents in the study seen from 5 categories, namely: age, highest level of education, length of service, duties and position. as well as whether the midwife has experience in use application kescatin. In the age category, the number of respondents in this study was dominated by midwives with an age range of > 30 years (93.33%). Furthermore, in the final education category, 93.33% dominated the midwives who had a final education of D III. This experience use application, submitted that all respondents have knowledge

and experience for application kescatin application in reproductive health services for prospective brides and grooms.

Table 2. Characteristics Bride and Groom Respondents

		Respondent Characteristics	
	Characteristics	Frequency(n)	Percentage(%)
1	Gender		
	Man	18	45.0
	Woman	22	55.0
2	Age (years)		
	> 30	9	22.5
	17-30	31	77.5
3	Education		
	Elementary School	2	5.0
	Junior High School	2	5.0
	Senior High School	22	55.0
	S1/S2	14	35.0
4	Work		
	Honorary	3	7.5
	IRT	5	12.5
	Employee	4	10.0
	Civil servants	1	2.5
	Private	22	55.0
	Self-employed	5	12.5
5	Have you ever heard about the kescatin application before?		
	Yes	31	77.5
	No	9	22.5
Total		40	100.0

Source: Processed Primary Data, 2024

Based on table 2, it reflects that In the age category, the number of brides to be in this study was dominated by the 17-30 year age range, 31 people (77.5%) , 22 people (55.0%) were female. Furthermore, in the last education category, respondents were dominated by secondary education, 22 people (55.0%). Of the 40 registered respondents, 31 people (77.5%) knew and understood the kescatin application, and 9 people (22.5%) did not know about the kescatin application. Total of 40 questionnaires were then tabulated using software to collect respondents' responses to the research variables. Then several measurements were processed, namely the maximum and minimum responses of respondents, mean, and standard deviation.

**Table 3. 1of the Acceptance of Prospective Brides and Grooms
Use Application Kescatin**

Statement Items	Strongly Disagree		Don't agree		Doubtful		Agree		Strongly agree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Performance Expectancy (PE)												
Use application kescatin capable increase quality health daily	1	2,5	0	0,0	5	12,5	25	62,5	9	22,5	40	100,0
Use application kescatin make it easier I learn prevention disturbance health reproduction	0	0,0	6	15,0	13	32,5	13	32,5	8	20,0	40	100,0

Statement Items	Strongly Disagree		Don't agree		Doubtful		Agree		Strongly agree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Use application kescatin affect productivity I as catin	0	0,0	1	2,5	0	0,0	24	60,0	15	37,5	40	100,0
Use application kescatin more interesting from using print media	0	0,0	1	2,5	1	2,5	22	55,0	16	40,0	40	100,0
Effort Expectancy (EE)												
I get the information that I need from application kescatin	0	0,0	1	2,5	0	0,0	23	57,5	16	40,0	40	100,0
I with easy and skilled use application kescatin	0	0,0	1	2,5	0	0,0	23	2,4	16	40,0	40	100,0
Application kescatin provide easy material I understand	0	0,0	1	2,5	0	0,0	23	2,4	16	20,0	40	100
Social Influence (SI)												
Other people are able influence I For use application kescatin	0	0,0	1	2,5	2	5,0	23	57,5	14	35,0	40	100,0
Important person for I support I use application kescatin	0	0,0	1	2,5	4	10,0	20	50,0	15	37,5	40	100,0
I use application kescatin Because recommendation from the people around I	1	2,5	11	27,5	3	7,5	17	42,5	8	20,0	40	100,0
Facilitating Condition (FC)												
I have sufficient knowledge and skills For use application kescatin	0	0,0	2	5,0	1	2,5	23	57,5	14	35,0	40	100,0
I use service in accordance instruction technical available in application kescatin	0	0,0	2	5,0	0	0,0	22	55,0	16	40,0	40	100,0
People (or certain groups) available For help overcome difficulty in use application	0	0,0	1	2,5	1	2,5	23	57,5	15	37,5	40	100,0
Behavioral Intention (BI)												
I will use application kescatin during I need material about kescatin	0	0,0	1	2,5	1	2,5	23	57,5	15	37,5	40	100,0
I will recommend application kescatin to others in need	0	0,0	1	2,5	1	2,5	23	57,5	15	37,5	40	100,0
Use Behavioral (UB)												
Use application kescatin is a good and interesting idea	0	0,0	1	2,5	0	0,0	24	60,0	15	37,5	40	100,0

Statement Items	Strongly Disagree		Don't agree		Doubtful		Agree		Strongly agree		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Easy for operate application kescatin in accordance needs and wants	0	0,0	1	2,5	6	15,0	20	50,0	13	32,5	40	100,0
I feel happy and comfortable use application This	0	0,0	1	2,5	0	0,0	23	57,5	16	40,0	40	100,0

Based on Tabel 3 UTAUT (Unified Theory of Acceptance and Use of Technology) theory is a model used to analyze user acceptance and behavior towards technology. It is known that most respondents with high behavioral intention, namely 38 (95.0%) respondents and that the majority of respondents have high use behavior, namely 39 (97.5%) respondents. it can be concluded that the behavioral intention is the tendency of behavioral intention to continue using the system technology used. Which means that if someone feels intentional and motivated, they believe that the system they use in their work is able to make users still want to continue using the system in the future.

2. Qualitative analysis results

A qualitative study was conducted with 15 midwives through *in-depth interviews*, the results of the interviews produced views regarding the midwives' experiences using the kescatin application during reproductive health services. The information obtained in the form of recorded data was transcribed and then carried out the process of coding, categories and determining themes with the acquisition of 71 codings, 17 categories and 3 themes in figure 4.

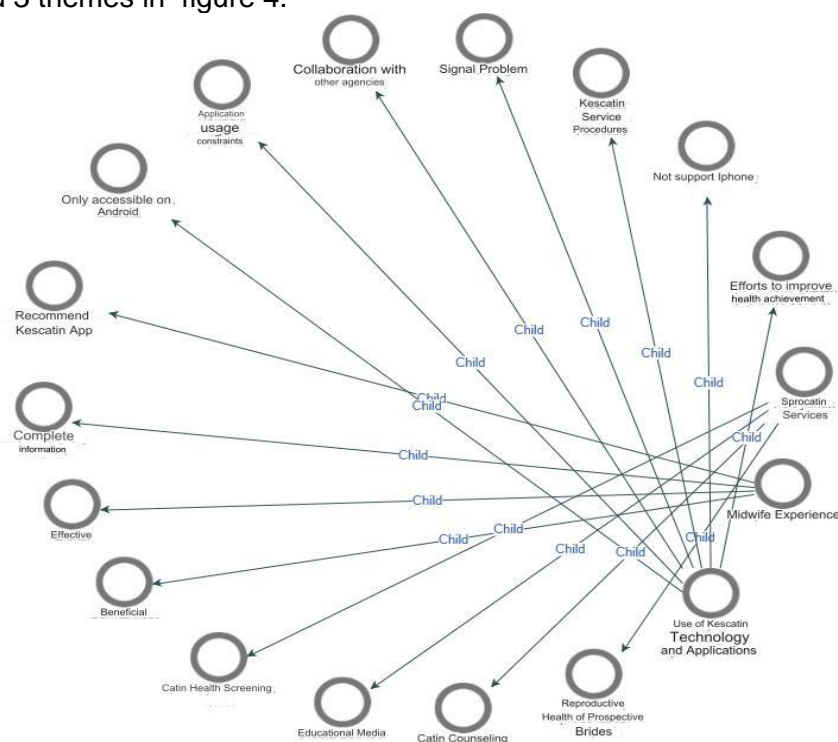


Figure 4. Coding Scheme, Categories and Themes

Based on the results of the interview, it was stated that the kescatin application has been used by midwives in kescatin services at community health centers, it can

support health services, especially in providing education and screening for suitable pregnant women using brides to be.

'...In the past, I had to record all patient information manually and it was very time consuming. Now, I just need to enter the data into the app, and everything is neatly recorded...'(R4)

'...With this application, I can be faster and more precise in providing services. All patient data is immediately recorded properly, and no longer need to record manually...'(R 6)

'...to conduct early detection, brides to be from religious affairs office come to the community health centre for laboratory examination, tetanus toxoid immunisation, brides to be screening, counselling...'(R8)

'...I had recommended this kescatin application to all midwives in the maternal and child health room, either for use in services at the community health centre or for independent practice...'(R14)

Regarding the experience of midwives, this study found different results, not all midwives thought that the application could make midwives' work better. The kescatin application was considered to make the midwife's work become more and inhibit other work.

'...The kescatin application can be accessed anytime and anywhere...besides that brides to be can use it independently, the local midwife can help fill in if there is something that is not understood...'(R6)

'...It is the main task as a midwife to provide services for prospective brides...'(R9)

'... Because of the demands in the work at the health centre, adding to the midwife's work...'(R1)

'...Actually quite easy to learn, but it adds to the workload, especially when there are many patients, it will waste time just to input in the application....'(R3)

However, regarding ease of use, users felt that the kescatin application could be easily learnt and used. In general, the utilisation of the kescatin application by midwives is quite good, but efforts are needed to overcome various obstacles during its implementation.

'...At first it was a bit confusing, especially for midwives who are not too familiar with technology. But after a few tries and practice, it turned out to be quite easy to use...'(R7)

'...the kescatin application can be accessed anytime and anywhere...besides that brides to be can use it independently, the local midwife can help fill in if there is something that is not understood...'(R15)

'...My experience with kescatin is very positive. I can provide better and more efficient services to my patients. However, I hope there are further updates and support to overcome some technical obstacles...'(R5)

DISCUSSION

1) Midwife's experience in Utilization Kescatin App

Researchers have explored the experience of midwives regarding the use of the Kescatin application. Health workers who consider an application easy to use and have a complete information system will support health workers in providing comprehensive services and in accordance with standards. In this qualitative study, researchers divided into 3(three) major themes regarding midwives' experiences in using the Kescatin application [38]. The first theme, which is the reproductive health services of prospective brides. Based on the results of the interviews, it was found that kescatin services at the community health centre were carried out in accordance with standard operating procedures, carried out by providing KIE, physical laboratory examinations and filling out the kescatin application.

Midwives noted that the kescatin application was useful in improving access to health information and services. The kescatin application will be better if it is known and often used by the community. The results of this study are in line with Savitri (2023) that Android-based smartphone technology is a health promotion medium that can be developed because it has a wide range and increases access to health-related information [39], [36]. Supported by Kuswanto & Radiansah, (2018), that android-based educational media is something to channel information and messages to recipients through tools, methods and techniques as intermediaries or introducers to facilitate communication in interacting between information providers and information recipients so as to help make the learning process more effective and interactive by utilising technological developments in the field of education [37].

Apart from the community health center, kescatin services are also provided at religious affairs office, by agreement cooperation between the Ministry of Religion and the Pangkalpinang City Health Service about implementation guidance marriage and ministry health for candidate bride, intended For support implementation guidance marriage and ministry health for catin [16], [39] [18], [19], [15]. This Study in line with research by Dila et al (2019), results research on average knowledge candidate bride after given counseling health reproduction increase with good knowledge. Reproductive health counseling for prospective brides is considered very necessary, because with this program they become aware if there is a disturbance in their partner so that it can be followed up early [42]. The results of this study are supported by Mumtihan (2017) that the implementation of reproductive health counselling in the marriage guidance program effectively increases the reproductive health knowledge of brides to be [17].

The second theme, midwives experience, explained this kescatin application can help midwives in carrying out kescatin because it is practical and easy to use. Midwives do not need to carry a lot of educational media during the service. Then application kescatin integrated with e-cohort, if will view data or documentation results inspection can only with open e-cohort. The results of this study are in line with Odendaal, 2020 which states that health workers who use mHealth applications can reduce their burden to carry documents to the field [41]. Can facilitate data management, reduce difficulties in data input, and can increase data transparency and accountability [44], [43]. Midwife considered that the kescatin application was easy to use, from inputting data, accessing data, filling in data, and screening pregnant women. Midwives felt that the application helped them provide more accurate and efficient health information, and that midwives were more confident and competent.

The third theme is the use of technology and kescatin applications, information technology has touched various fields and aspects of life, including the health sector. Health care is one of the fields that has utilised these technological developments, both clinical and non-clinical or information technology that 'intersects' directly with patients (technology that supports clinical decision making) or that is used in the management system of health care facilities (application of technology). Educational media in the form of the kescatin application helps midwives in carrying out kescatin services, starting from documentation, providing information, pre-marital screening examinations, early detection, and finally getting the results of pregnancy eligibility.

In accordance with research Firdaus et al, 2021 the advancement of digital technology has enabled a transformation in the way information is accessed, communicated, and interacted with the health system. The application of digital technology in public health services includes various innovations such as online platforms, telemedicine, mobile applications, big data analytics, artificial intelligence, and the Internet of Things [44]. With the support of these technologies, individuals can easily access health information, conduct remote consultations with medical personnel,

manage electronic medical records, and monitor health conditions independently [47] , [48] The results of this study are in accordance with those stated by Darwitri, 2023 that the education menu in an mHealth application is useful for increasing the knowledge and skills of midwives to be able to provide better health services, so that they can contribute to reducing MMR and IMR. [47]

However, the results of the analysis collected several obstacles and potential problems that have a negative impact on the usefulness of the application, namely, increasing the burden of midwives' time and work, not making midwives' work easier and faster, and when using applications such as limited media, both gadgets and internet quota, and only support on android. The results of this study are in line with Fitria, 2020, which states that the biggest obstacle for midwives in using the application is its time-consuming use. These findings support the development of technology-based programs such as the kescatin application to improve the quality of reproductive health services.

Midwives have the assumption that using the application is quite complicated because it is difficult to understand the conditions that occur and requires a lot of time from the midwife's normal work. Some midwives also admitted that the data input process in the application often occurred repeatedly for the same data, which consumed time. Not only that, the use of applications that have not been maximised makes midwives still required to fill in the manual system. This double workload then consumes the respondents' time in providing services [48]. A strategy to increase digital literacy among midwives and prospective brides is also needed to ensure that this application is optimally utilized.

The kescatin application can support in conducting systematic examinations, so that midwives can provide comprehensive and comprehensive care. An mHealth application is very important to use during pregnancy, especially for early detection, determining diagnosis, monitoring health status, and management related to health problems during pregnancy [20] ,[51]. The kescatin application can also facilitate midwives in making decisions and subsequent action plans because it can improve the quality of health of brides to be and fertile age couples.

2) Overview of prospective brides' acceptance of the kescatin application

This study shows that most informants are in the age stage of adulthood with a good level of emotional maturity to receive information and prepare for marriage. Supported by research from the American Psychological Association in 2018 which states that adults have more stable emotional maturity to maintain their own well-being than those below. Another researcher argued that the age of the bride-to-be 18-21 years old is the age phase of late adolescence and early adulthood. This age period includes the age range from 18 or 19 years to 24 or 25 years, which is an age phase that is not only faced with achieving academic success, but starting to be able to show behaviour and personality to explore various lifestyles and life values as provisions for living independently.

The characteristics of the last education of respondents were dominated by secondary education as many as 22 (55.0%) people, this indicates that most respondents have received education and can receive information well. Supported by research by Darsini (2019) states that the level of education is one of the factors that can affect a person's level of knowledge, where education in an individual will influence the ability to think, then a person's level of education will affect the level of acceptance and understanding of an object or material that is manifested in the form of knowledge[50]. Most of the respondents had worked and were dominated in the private sector as many as 22 (55.0%) people. This shows that respondents who work have readiness to get married. It also supported by Shela's research (2024) that there are several supporting factors such as being able to help the family / husband's economy,

helping to ease the burden on the husband as head of the household and being able to prepare savings for pregnancy, childbirth and children so as to reduce arguments if the family's economic situation is in an unstable phase.[51]

The results showed that most respondents with high behavioural intention were 38 (95.0%) respondents. Which means that if someone feels intentional and motivated then they believe that the system they use at work is able to make users still want to continue using the system in the future [53] ,[54]. Behaviour Intention explains that respondents have the intention of using the system continuously in accepting technology (Use technology) and recommending the kescatin application to others in need. The successful implementation of an application depends on acceptance by users. User perceptions regarding understanding related to the application of new health technology, such as users trusting the technology, technology is easy to use and provides benefits in its use [55] ,[56] The results of this research are in line with descriptive quantitative research conducted by Nkabane (2024) regarding the usability and acceptance of health applications for young women, assessed by how much benefit users get[56]. This application facilitates and increases brides to be's knowledge about pre-pregnancy. Brides to be get pre pregnancy information anytime and anywhere. Brides to be's pre-pregnancy knowledge is not only obtained during counselling, with the pocket book menu and screening worthy of pregnancy in this application can determine the level of knowledge and readiness for pregnancy for brides to be. The results of this study are supported by Fyzria's research (2021) that the use of android-based educational media makes it easier and increases the knowledge of prospective brides [57]. In lines with Arbaningrum's research (2023) in the form of a literature study which aims to provide an overview of what factors can influence how user acceptance of a new technology uses the UTAUT theory approach, which states that these constructs are able to influence the intention to use the PeduliLindungi application (Behavioural Intention) so that user acceptance of the PeduliLindungi application is known based on their usage habits (Use Behaviour) [58]. A person's behaviour can be seen from their intention to use an information technology system. Someone will use the system if they believe that the system is useful in helping them complete their work or vice versa. Using behavioural intention theory can show a person's belief in using the application. [9] ,[59]

Limitations of the research area this study only covers pangkalpinang city, so the results may not fully represent the population in other areas with different socio-cultural characteristics. Dependence on technology access this study focuses on android-based applications, so it does not include prospective brides and grooms who do not have access to digital devices or the internet. subjective responses to qualitative data qualitative data from in-depth interviews may be influenced by subjective bias from informants and researchers, although systematic steps have been taken to reduce this bias.

Implications of research results for health policies and programs these findings support the development of technology-based programs such as the kescatin application to improve the quality of reproductive health services. The government and related agencies can integrate this application into the national premarital guidance program. Strategies to improve digital literacy among midwives and prospective brides are also needed to ensure that this application is optimally utilized. For future research, it can expand the scope of the area, involving areas with low access to health, to identify challenges in implementing health technology in various cultural and social contexts. Studies can be conducted to evaluate the impact of this application on long-term health outcomes, such as healthy pregnancies and reduced stunting rates.

CONCLUSION

This study has shown the kescatin application has a high level of acceptance among prospective brides and midwives, and is considered easy to use and effective in supporting reproductive and premarital health education. The practical implication is the application can be widely implemented in public health services to improve the readiness of prospective brides and grooms in facing healthy marriages and pregnancies. One potential intervention that can utilize these findings is integration of kescatin application in premarital guidance program under the coordination of the Ministry of Religious Affairs and Ministry of Health.

Recommended strategies include ongoing training for midwives and health workers for optimal use of the application, providing access to the kescatin application in health facilities, and adequate infrastructure support, such as internet networks in areas in need. In addition, this application can continue to be developed with additional features for monitoring nutrition, mental health, and integration with other health systems to strengthen the premarital service network. Thus, wider implementation of the kescatin application has the potential to improve reproductive health outcomes and reduce the health risks faced by prospective brides and grooms, thereby contributing to reducing maternal and infant mortality rates in Indonesia.

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