# INNOVATION OF ISLAMIC HOLISTIC MIDWIFERY CARE DOCUMENTATION DIGITAL-BASED AS A LEARNING MEDIA FOR UNDERGRADUATE MIDWIFERY STUDENTS 'AISYIYAH BANDUNG UNIVERSITY

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## Abstract

**Background :** The era of the industrial revolution 5.0 demands that information technology systems can be utilized in recording and reporting midwifery care. This is intended to facilitate the achievement of the goal of documenting midwifery care. This study aims to design SOAP Digital as a learning medium and find out the use of digital SOAP innovation. This software installation has a capacity of 500 MB and requires less than 1GB of storage. **Method:** This study used an experimental approach post test only control group design. Researchers made a pilot project to design and build innovations documenting digital-based Islamic holistic midwifery care. Digital SOAP operation technology interventions are carried out on the object of study. After that, an evaluation or feed back is given through the G-form on the object. The objects of this study are 78 persons bachelor of midwifery student of FIKes Unisa Bandung. The results of data collection were analyzed using spss for windows software. **Results :** showed that the digital-based Islamic holistic midwifery documentation application has 2 versions, namely the web version and the android version. The advantages of designing digital SOAP application innovations are that they are more effective in time (87%), more efficient in using paper (92%), more modern because they can use a PC, laptop, or smartphone (92%), more practical (87%), minimal risk of damaged or lost data (95%), and long data storage (90%). The results of the Spearman rho correlation data analysis test showed p-value of 0.000 < 0.05 so that it can be concluded that there is a correlation between the utilization of digital SOAP applications and student satisfaction.

Keywords : Midwifery Documentation, Islamic Holistic Midwifery Care, Digital

**INTRODUCTION**

An activity related to the process of recording, storing, or reporting data information (facts) in the implementation of activities is the whole meaning of documentation. Documentation functions as a collector, store, and disseminator of information to maintain a number of facts on an ongoing basis at a time for a number of events (Midwifery Council of New Zealand, 2018). Documentation is used as an information, both written and recorded, regarding subjective data taken by anamnesa (interview), physical examination results, supporting examination results (laboratory, ultrasound, CTG, NST), analysis (diagnosis), planning and implementation and evaluation, medical action, treatment given to clients both outpatient, inpatient, and emergency services (Anita, 2018).

Original documentation or authentic records is the basic definition of documentation. Documentation can be used as legal evidence and legal data of the care that has been provided.Documentation is a written or printed document that can be used as evidence of information (Kamus Besar  Bahasa Indonesia). Examples of documentation include birth certificates, marriage certificates, agreement letters, and so on. Midwifery care documentation is a completerecording and reporting evidence owned by midwives after performing midwifery care which is useful for the benefit of clients, midwives, and other health teams. (Juwita et al., 2019).

The basic rules in conducting midwifery care documentation are written communication,accurate, honest, and complete. Midwifery documentation is very important for midwives in carrying out their professionalism practices. This is because midwifery care provided by midwives to clients requires recording and reporting as a basis for reference for responsibility and liability that may be experienced and as information data on client health status (Beach &Oates, 2014).

The era of the industrial revolution 5.0 requires information technology systems to be utilised in the recording and reporting of midwifery care. This is intended to facilitate the achievement of the goal of documenting midwifery care. Currently, there is no specialapplication that can be used by midwifery students in

documenting midwifery care digitally, including on the campus of 'Aisyiyah University Bandung. Previously, digital applications thathave been developed are digital partographs, emergency screening, monitoring the welfare offetuses and pregnant women, and monitoring child growth and development (Ningrum et al., 2019). There are paid and unpaid applications. The development of technology makes it easy for the community to make good use of it (Juwita et al., 2019).

Based on preliminary studies that have been conducted on midwifery undergraduate students at Aisyiyah University Bandung for 2 years of learning midwifery documentation courses. 70% of students said they had difficulty documenting midwifery care because when carrying out practical care on clients. The *paper-based* documentation method makes itdifficult for 90% of students to carry documentation books when practising. Ningrum'sresearch (2019) concluded that the use of digital documentation in this case digital partographscan provide benefits in addition to easy and practical access, digital partograph documentationis able to change the habits of midwives who are more advanced than before (Ningrum et al., 2019). The digital-based midwifery documentation project that will be developed consists of 2versions, namely the web version and the android version. This software installation has a capacity of 500 MB and requires less than 1GB of storage. This application is a transformation of paper-based midwifery care documentation into digital form. Islamic holistic midwifery careis midwifery care provided by looking at the 4 aspects of life namely biological, psychological, social/cultural, and spiritual. This course is a course of excellence in the Bachelor of Midwifery, Faculty of Health Sciences, Aisyiyah University Bandung. When students conduct

assessments on clients, they are required to use the SOAP assessment format which has been integrated in a holistic Islamic manner.

Based on the description above, it can be concluded that digital-based Islamic Holistic Midwifery Care Documentation is very important to be made as a *pilot project for* recording and storing important data or data on the results of activities providing midwifery care and Islamic holistic midwifery services in the internal environment of 'Aisyiyah University Bandung.

**METHOD**

The design used in this research is a *pilot project* experimental *post test control group design*. This design was taken because the researcher wanted to know the description of the Innovation of Digital-Based Islamic Holistic Midwifery Care Documentation as a Learning Media for Undergraduate Midwifery Students at 'Aisyiyah University Bandung. Analysis of data analysis using *pearson product moment correlation* test. This study used a total samplingtechnique. The research subjects were undergraduate midwifery students at 'Aisyiyah University Bandung, especially students in level 3 and level 4 totalling $27+51 = 78$ people. Thesample will be given a technical guidance intervention (Bimtek) on how to use digital SOAP for approximately 120 minutes in a hybrid manner. The technical guidance provided refers to the guidelines for using digital SOAP. This study was conducted over a period of 6 months (June-November 2022).

Application development was conducted for 3 months (June-August 2022), coordination, consolidation, and advocacy to SIT Unisa Bandung 2 months (September-October). Data collection and processing was conducted in 1 month (November). *Software* development of digital-based holistic Islamic midwifery care documentation innovation design in collaborationwith Wildan Desnandar and team Programmer. The digital-based Islamic holistic midwifery care documentation application content still refers to the Islamic holistic midwifery care assessment format that was previously learned during documentation and IT lectures but is still paper-based. The Islamic holistic midwifery care assessment format is a SOAP assessment format that has been integrated holistically based on Islamic values. Islamic holistic midwifery care looks at 4 aspects of life namely biological, psychological, social / cultural, and spiritual. This *application/software* has a capacity of 500 MB and requires less than 1GB of storage. This storage will increase in capacity as the user uses this application.

Primary data is collected directly from research objects that meet the inclusion criteria. Each object will be given a username and password on the Digital-Based Islamic Holistic

Midwifery Care Documentation application as a Learning Media and carry out direct observation of the object. When the object of research is inputting a case synopsis from existing data into the application software, the researcher makes observations. Then the object of research will be given a digital questionnaire to fill in how *feedback* or evaluation of the digital application system. Measurement of the level of satisfaction is only measured from the object of research, namely students totalling 78 people. Meanwhile, lecturers and admins were not carried out in this study.

Statistical analysis for digital application utilisation used the *Pearson Product Moment correlation test,* where the digital SOAP utilisation variable was correlated with the student satisfaction level variable. This test is used to determine if there is a relationship between two categorical variables. The *p* value is significant if <0.05.
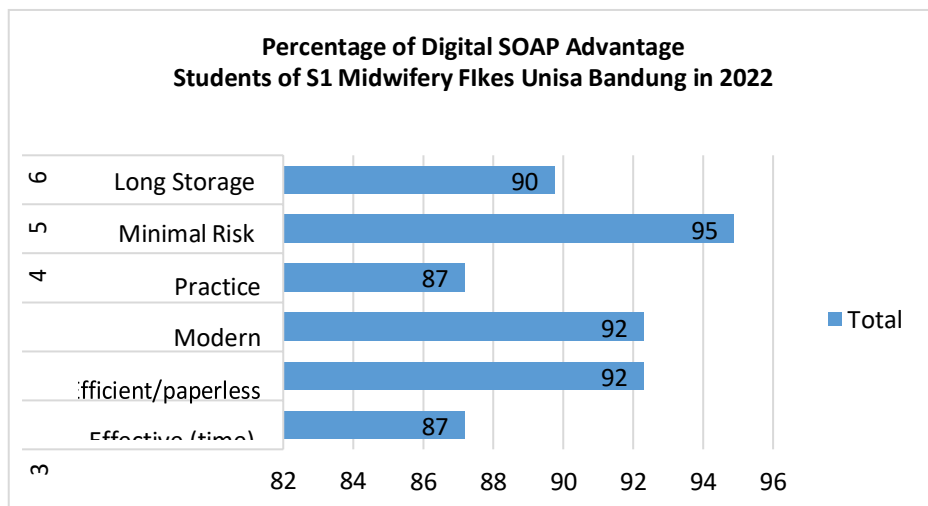
## RESULTS AND DISCUSSION

Referring to the research objectives, the results of this study indicate that the design of a digital-based Islamic holistic midwifery care documentation application has been completed. This application has 2 versions, namely the web version and the android version. In the digital soap menu there are 3 entries, namely entering as a student, as a lecturer, and as an admin. As a student there are dashboard, profile, and documentation views. The documentation menu consists of 6 logic, namely antenatal care (ANC), intra natal care (INC), and postnatal care (PNC), newborns (BBL), reproductive health / contraception, and menopause. In each student account documentation format, it consists of input, excel, recap table, upload revision, download word, delete. The lecturer account consists of dashboard and approve menu views. When lecturers enter the approve menu, they will be shown a digital soap recap made by students, which consists of no, date, client, student name, documentation type, status, and options. The incomplete display on the lecturer's account is approval. Approval has several options, namely rejected, accepted, and revised. Lecturer accounts can see the number of digital soap recaps that students have done. The third display is the admin account. In digital soap the admin account consists of a dashboard and members. Members consist of a matrix / table display
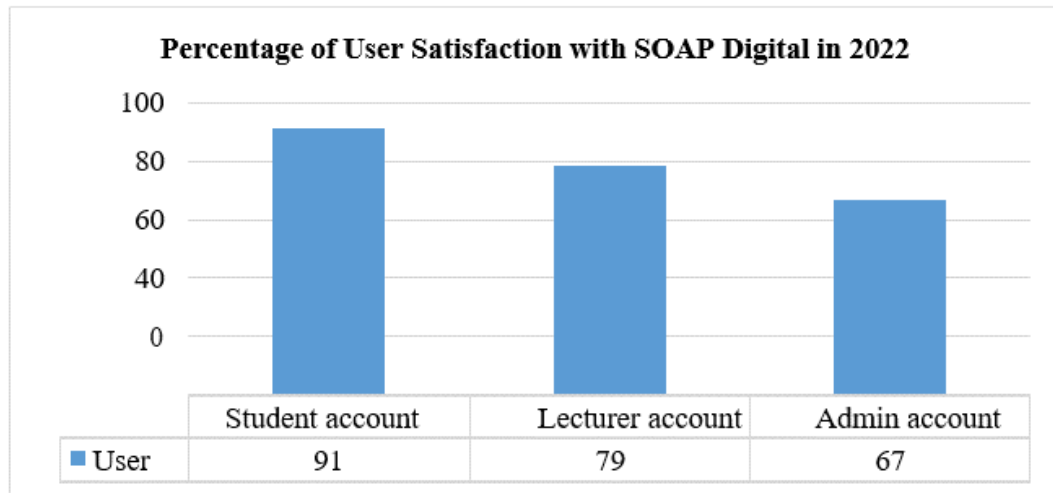
to monitor people who have used this digital soap application. In the matrix consists of number, full name, username, status, and action. Action consists of change and delete. Admin functions to guide users in using this digital soap application. Admin also functions to enter data based on lecturers and students so that student and lecturer accounts can be accessed. Fromthese three accounts, it is hoped that users will find it easier to use this digital soap application.

The advantages of designing an innovative digital application for documenting holistic Islamic midwifery care as a *pilot project* are more effective in time, more efficient in the use of paper (paper less), more modern because it can use a PC, laptop, or *smartphone*, more practical, minimal risk of damaged or lost data, and long data storage. The disadvantages of this digital soap are that it still does not have hosting, some lecturer account displays are not optimal, including the approval menu that has not worked, while in the student account there is already a display of approval by the lecturer so it needs to be synchronized again. In the admin account, user data inputting has not yet appeared. In long use and many users, this application will require a fairly large storage. The following are the results of disseminating the digital soap application to undergraduate midwifery students totaling 78 students. The research subjects have received midwifery care courses as well as midwifery documentation and IT.

Graph.1 Percentage of Digital SOAP Advantage



Percentage of Digital SOAP Advantage
Students of S1 Midwifery FIkes Unisa Bandung in 2022

- Long Storage: 90
- Minimal Risk: 95
- Practice: 87
- Modern: 92
- Efficient/paperless: 92
- Effective (time): 87

Graph.2 Percentage of User Satisfaction with SOAP Digital



The Utilization of Digital-Based Islamic Holistic Midwifery Care Documentation Innovation as a Learning Media for Midwifery Undergraduate Students of Universitas 'Aisyiyah Bandung can be illustrated from the matrix below:

**Table.1 Digital SOAP Advantage Matrix with *User Satisfying***

| Category Percentage | n | Digital SOAP Dependencies | User Satisfaction | Standard Deviation | Data normality test |
|---|---|---|---|---|---|
| 25-49 | 77 | 0 | 1 | - | - |
| 50-75 | 77 | 13 | 5 | 25,25 | 0,200 |
| 76-99 | 77 | 5 | 18 | 16,52 | 0.006 |
| 100 | 77 | 59 | 53 | 8,89 | 0.000 |

The results of the analysis test using SPSS for Windows show that the data is not normally distributed. The *Spearman* rho correlation test shows a *p-value of* 0.000 <0.05 so thatit can be concluded that there is a correlation between the benefits of digital SOAP applications or digital-based holistic Islamic midwifery care documentation with user satisfaction ofundergraduate midwifery students at the Faculty of Health Sciences, Aisyiyah University Bandung.

The design of an innovative digital application for documenting holistic Islamicmidwifery care or abbreviated as SOAP Digital has 3 entry points to the application, namely student accounts, lecturer accounts, and admin accounts. This is intended to facilitate the use of software. This application has included documentation of 6 scopes of midwifery care, namely antenatal care, intra natal care, postnatal care, newborn neonates toddlers and children,reproductive health and family planning, and perimenopause in accordance with the realm of authority of midwives (Surtinah et al., 2019).

This software has a capacity of 500 MB and requires less than 1GB of storage for installation. This storage will increase in capacity as the user uses the application. As the datagrows, the storage for this application will automatically increase (Midwifery Council of NewZealand, 2018). Therefore, sufficient hosting is required so that this application can continue to be developed in the future.

The advantages of designing an innovative digital application for documenting holistic Islamic midwifery care are more effective in time, more efficient in the use of paper (paper less), more modern because it can use a PC, laptop, or *smartphone,* more practical, minimal risk of data damage or loss, and long data storage. Graph 1 above shows the percentage of advantages of digital SOAP from the six aspects measured. The highest aspect is shown by theapplication having minimal risk in its use compared to conventional recording at 95%. This is in accordance with the royal college of midwives report which states that electronic obstetric documentation is less risky in terms of loss, damage and long storage (Record et al., 2021).

The data shows that long storage has a percentage of 90%, practical as much as 87%, and efficient at 87%. The use of paper to be minimal in digital SOAP is

clearly evident in today's era (92%), where students are more interested in digital literacy than the use of books (Haddadet al., 2020). In addition, the use of digital SOAP is considered more modern (92%) and can meet the needs of the times for technological developments when compared to paper-based documentation (Beach & Oates, 2014). Of the six aspects measured, overall the survey resultswere above 80%, which means that the digital SOAP application has a good advantage in its use by users.

The disadvantages of this SOAP Digital Innovation reported by users include the need for a large *spec* in annual use (3-5 years) because each student will document more than 50 pieces during the education process. This shortcoming can of course be minimized in accordance with future software development (Anita, 2018). This application requires an internet network and can be used on PCs or smartphones. The risk of data loss from the application is minimal because the data that has been stored in the software will be automatically recorded. However, this application will require a large spec if used for a periodof > 5 years so that the storage capacity must be increased. Alternatively, if the storage cannotbe increased, the memory data will be deleted automatically. This application can be used in various remote areas as long as an internet connection is available. The weaknesses of this software can be anticipated by continuing to develop features and content, adding storage, and*hosting* on a secure server.

In terms of user satisfaction with the digital SOAP, student accounts showed a 91% satisfaction percentage. While the lecturer account is 79%, and the admin account is 67%. Future research needs to explore more deeply and broadly for the development of application menus on the lecturer and admin pages.

Based on table.1 above, the use of Digital-Based Islamic Holistic Midwifery Care Documentation Innovation as a Learning Media for Undergraduate Midwifery Students at 'Aisyiyah University Bandung shows a p value of 0.000 and a p value <0.05, meaning that there is a relationship between the benefits of digital SOAP applications or digital-based Islamic holistic midwifery care documentation with user satisfaction of Undergraduate Midwifery students at the Faculty of Health Sciences, Aisyiyah University Bandung. This study is in line with Ningum's 2019

research which shows that midwifery students are more satisfied using digital partographs compared to paper-based partographs because digital partographs make it easier for students to input data, record data, and are more modern and usable (Ningrum et al., 2019). Seeing that there are still weaknesses in this study, including this application requires secure *server hosting*, large *storage*, and extensive and deep feature development and is always related to the documentation of holistic Islamic midwifery care,

further research is expected to measure the level of satisfaction from the point of view of lecturers and admins as well as developing content or features in it.

## CONCLUSIONS, SUGGESTIONS AND ACKNOWLEDGMENT

Based on the results of this study, it is clear that the Innovation of Digital-Based IslamicHolistic Midwifery Care Documentation as a Learning Media is very beneficial for students and lecturers of the Bachelor of Midwifery at 'Aisyiyah University Bandung. Lecturers can be easier and more practical in monitoring student assignments and minimal risk of loss or damage. Therefore, the development of this application must continue to be carried out to support learning media and as an innovative work of the nation's children for the advancementof science and technology, especially in midwifery documentation and IT courses.

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